

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

00335

Term-End Examination

December , 2010

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 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. Following statements about cyanotic spells are true except :
 - (1) Commonly seen below 2 years
 - (2) Murmur becomes loud
 - (3) Cyanosis deepens as spell progresses
 - (4) Tachypnoea is present

2. Following statements about D-dimer assay are true except :
 - (1) I-dimer is a fibrin specific degradation product
 - (2) In presence of an acute thrombotic event, there is increased concentration of D-dimer
 - (3) Normal values of this protein have high negative predictive value
 - (4) The test is highly specific for DVT and pulmonary embolism

3. Following statements about Pulmonary Embolism are true except :
 - (1) Normal chest x-ray does not rule out diagnosis of PE
 - (2) Normal ECG does not exclude PE
 - (3) Pulse oxymetry is insensitive in making a diagnosis of PE
 - (4) TTE is sensitive for visualization of thrombi in pulmonary circulation

4. Following are clinical features of Cardiac Tamponade except :
 - (1) Sinus Tachycardia
 - (2) Dyspnoea
 - (3) Decrease in JVP during inspiration
 - (4) Decrease in Blood Pressure during inspiration

5. Following statements about milrinone are true except :
 - (1) It is a potent vasoconstrictor
 - (2) It has positive inotropic effect on the heart
 - (3) It reduces left ventricular filling pressure in patients with heart failure
 - (4) It is a phosphodiesterase inhibitor

6. Following statements about Acute MI are true except :
 - (1) Onset of MI may be at any time of the day or night
 - (2) Some of the triggers are physical exercise, emotional stress
 - (3) In about 10% of cases, no precipitating factors appear to be present prior to MI
 - (4) Some of the patients may not experience any pain

7. Following statements about Tachyarrhythmia in the setting of myocardial infarction are true except :
- (1) Accelerated idioventricular rhythm generally does not need antiarrhythmic therapy
 - (2) Cardioversion is always indicated for episodes of sustained haemodynamically compromising VT
 - (3) Sustained monomorphic VT not associated with symptoms or haemodynamic compromise may be treated with I.V. Amiodarone
 - (4) Primary ventricular fibrillation is less amendable to treatment than secondary fibrillation
8. Following statements about Complete Heart Block in the setting of acute anterior myocardial infarction are true except :
- (1) CHB often occurs suddenly 12-24 hours after the onset of infarction
 - (2) Above patients have unstable escape rhythm
 - (3) ECG in the above patients generally show wide QRS complexes and rates less than 40 beats per minute
 - (4) Mortality is high and approximately 10 percent
9. Following statements about AV Blocks in the setting of acute myocardial infarction are true except :
- (1) Incidence of First degree AV Block is less than 15%
 - (2) It is Infrachisian
 - (3) 1st degree and Type I 2nd degree do not appear to affect survival
 - (4) Pacing is usually not needed
10. Following are absolute contraindications for use of thrombolytic therapy in the setting of acute myocardial infarction except :
- (1) Any prior intracranial haemorrhage
 - (2) Known structural Cerebral Vascular Lesions (AVM)
 - (3) Ischaemic stroke within 3 months
 - (4) Severe uncontrolled hypertension on presentation (SBP > 180 mm of Hg or DBP > 110 mm of Hg)
11. Following ECG changes are suggestive of RV infarction in the clinical setting of Acute Inferior wall myocardial infarction :
- (1) ST segment elevation of 1 mm or more in lead V_1 and V_4R
 - (2) ST segment higher in lead V_1 than in V_4R offers highest specificity of diagnosis
 - (3) ST segment elevation in lead V_1 with ST segment depression in lead V_2 also suggest presence of RV infarction
 - (4) In most studies, ST elevation in lead V_4R was found to be the most sensitive of all extra right precordial leads.

12. Following statements about Killip classification are true except :
- (1) Class I – Patient are free of rales and third heart sound
 - (2) Class II – Patients have rales < 50 percent of lung field
 - (3) Class III – Patient have rales in more than half of each lung field
 - (4) Class IV – Patient are in pulmonary oedema
13. Following statements are true except :
- (1) Autoregulation of coronary blood flow is maintained at mean arterial pressure of 60 mm Hg to 130 mm Hg
 - (2) Coronary collaterals exhibit autoregulation during hypotension
 - (3) Both alpha 1 and alpha 2 adrenergic receptors are present in coronary arteries
 - (4) Beta 2 adrenoceptors in the large and small coronary arteries mediate vasodilation
14. Following are side effects of HMG COA reductase inhibitors except :
- (1) Hypothyroidism
 - (2) Liver function Test abnormalities
 - (3) Myopathy
 - (4) Neurological symptoms
15. Following are the secondary prevention trials for coronary artery disease except :
- (1) Heart Protection Study
 - (2) Scandinavian Simvastatin Survival Study
 - (3) Cholesterol and Recurrent Events Trial
 - (4) The Long-term Intervention with Pravastatin in Ischaemic Disease Study
16. In coronary circulation, following are referred as resistance vessels :
- (1) Epicardial coronary arteries
 - (2) Kogel's artery
 - (3) Mural artery
 - (4) Intramyocardial arterioles
17. Following statements about hyper homocystinemia are true except :
- (1) It may impair release of nitric oxide from endothelial cells
 - (2) It may stimulate proliferation of artherogenic smooth muscle cells
 - (3) It may contribute to thrombogenesis through activation of protein C
 - (4) Treatment reduces cardiovascular events
18. The commonest lipid abnormalities in Indians presenting with a coronary event is :
- (1) High Triglycerides and low HDL
 - (2) High Triglycerides and LDL
 - (3) High LDL to HDL ratio
 - (4) High LDL

19. Following are some of the adverse effects of thiazide diuretics except :
- | | |
|-------------------|-------------------|
| (1) Hyperglycemia | (2) Hyperuricemia |
| (3) Hyperkalemia | (4) Skin rashes |
20. Following statements about natriuretic peptides are true except :
- (1) Atrial natriuretic peptides is stored mainly in the atrium
 - (2) Brain natriuretic peptide is stored mainly in the brain
 - (3) C-natriuretic peptide is located primarily in the vasculature
 - (4) Circulating levels of AWP and BWP are elevated in heart failure
21. 37 years old patient previous myocardial infarction and LVEF 50%. Who has never shown signs and symptoms of heart failure earlier will be classified in which stage of heart failure as per ACC/AHA guidelines :
- | | | | |
|-------------|-------------|-------------|-------------|
| (1) Stage A | (2) Stage B | (3) Stage C | (4) Stage D |
|-------------|-------------|-------------|-------------|
22. To treat ventricular arrhythmia because of digitalis toxicity, following should be avoided :
- | | |
|----------------------|-----------------------|
| (1) Lidocaine | (2) Phenyton |
| (3) DC cardioversion | (4) Over drive pacing |
23. The antialdosterone agent, spironolactone has shown reduction in mortality in RALES trial when compared with placebo in patients with :
- | | |
|-----------------------------|---------------------|
| (1) Advanced CHF | (2) Pulmonary Edema |
| (3) Refractory Hypertension | (4) Acute MI |
24. Following combinations of signs and symptoms are suggestive of heart failure as per Framingham criteria for diagnosis of heart failure except :
- (1) Paroxysmal nocturnal dyspnoea and nocturnal cough
 - (2) Paroxysmal nocturnal dyspnoea and hepatojugular reflux
 - (3) Paroxysmal nocturnal dyspnoea and hepatomegaly and pleural effusion
 - (4) Cardiomegaly and crepitations in the lungs
25. On chest x-ray ; alveolar oedema suggests pulmonary venous pressure is likely to be :
- | | |
|--------------------|---------------------|
| (1) 12 to 18 mm Hg | (2) 19 to 24 mm Hg |
| (3) 25 – 34 mm Hg | (4) \geq 35 mm Hg |
26. Following statements in the setting of heart failure are true except :
- (1) As heart failure sets in, there is activation of renin angiotensin system
 - (2) Cholinergic stimulation of beta-1 receptors in juxtaglomerular apparatus of the kidneys result in release of renin
 - (3) Renin is also released by baroreceptor stimulation in renal vascular bed by reduction of renal blood flow
 - (4) Angiotensin II that is released is a powerful vasoconstrictor and stimulates the release of aldosterone

27. Following statements about heart failure with normal ejection fraction are true except :
- (1) The prevalence increases with age
 - (2) It is more common in men than women at any age
 - (3) In general, patients with heart failure with normal ejection fraction are more often obese than patients with heart failure with reduced ejection fraction
 - (4) Patients may develop pulmonary hypertension
28. Following statements about pulmonary findings in the setting of heart failure are true except :
- (1) Pulmonary crepitations result from the transudation of fluid from the intravascular space into the alveoli.
 - (2) In patients with pulmonary edema, crepitations may be heard over both lung fields and may be accompanied by expiratory wheezing
 - (3) Pleural effusion occurs more commonly with biventricular failure
 - (4) Absence of crepitations in the setting of chronic heart failure is a sure sign that pulmonary capillary wedge pressure is less than 19 mm Hg
29. Following statements about determinants of myocardial oxygen consumption are true except :
- (1) Myocardial oxygen extraction is near maximal at rest, averaging approximately 75 percent of arterial oxygen content
 - (2) The basal myocardial oxygen requirements needed to maintain critical membrane functions are approximately 75 percent of resting oxygen consumption
 - (3) Major determinants of myocardial oxygen consumption are heart rate, systolic pressure and left ventricular contractility
 - (4) A two fold increase in any of the above determinants of oxygen consumption requires an approximately 50 percent increase in coronary flow
30. Following statements about nitric oxide are true except :
- (1) NO is produced in endothelial cells by the enzymatic conversion of L-arginine to citrulline via type III NO synthase
 - (2) No production is controlled by calcium and calmodulin
 - (3) Endothelial NO diffuses abluminally into vascular smooth muscle cells
 - (4) NO mediated vasoconstriction is enhanced by cyclical or pulsatile changes in coronary shear stress
31. Following statements about irreversible injury and myocyte death are true except :
- (1) Irreversible myocardial injury begins after 20 minutes of coronary occlusion in the absence of significant collaterals
 - (2) In experimental infarction, it takes 4 hours for irreversible injury of subendocardium
 - (3) Irreversible injury begins in the subendocardium and progresses as a wavefront over time
 - (4) In experimental infarction, transmural progression of infarction is largely completed within 6 hours after coronary occlusion

32. Following statements are true except :
- (1) A defining feature of isolated myocardial stunning is that function remains depressed while resting myocardial perfusion is normal
 - (2) In steady state, the close matching between perfusion and contraction leads to a reduced regional oxygen consumption and energy uptake – a phenomenon termed short term hibernation
 - (3) Brief ischaemia preceding a prolonged coronary occlusion increases myocyte necrosis
 - (4) Myocardial pre conditioning is useful in management of coronary occlusion
33. Following statements about systemic infections and their effects on heart are true except :
- (1) Serious infections increase total body metabolism and thus impose haemodynamic burden on the heart
 - (2) Increased heart rate associated with infection is an additional burden
 - (3) Circulating inflammatory cytokines are cardioprotective
 - (4) Infections process may also have an element of myocarditis
34. Following statements about Tachyarrhythmias are true except :
- (1) They increase ventricular filling
 - (2) They increase myocardial oxygen demand
 - (3) In patients with coronary artery disease, aggravate myocardial ischaemia
 - (4) If persistent, they may cause a reversible cardiomyopathy
35. In the setting of acute stroke in a patient with hypertension consensus is to reduce blood pressure to the following level till the condition is stabilised :
- | | |
|------------------|-------------------|
| (1) 130/80 mm Hg | (2) 140/90 mm Hg |
| (3) 150/90 mm Hg | (4) 160/100 mm Hg |
36. Target blood pressure in a chronic kidney disease is :
- | | |
|------------------|------------------|
| (1) 120/80 mm Hg | (2) 130/80 mm Hg |
| (3) 130/90 mm Hg | (4) 140/90 mm Hg |
37. In diabetes with hypertension, following group of antihypertensive drugs is first choice :
- | | |
|------------------------------|-------------------|
| (1) ACE Inhibitors | (2) Beta blockers |
| (3) Calcium channel blockers | (4) Diuretics |
38. Following drugs may be used in gestational hypertension except :
- | | |
|-------------------|--------------------|
| (1) Methyldopa | (2) Hydralazine |
| (3) Beta Blockers | (4) ACE Inhibitors |

39. Following are the physical features of a case of hypertension with Cushing's syndrome except :
- (1) Hypokalemia
 - (2) Lower body obesity
 - (3) Increased pigmentation
 - (4) Rupture of collagen
40. Diagnostic tests for renovascular hypertension include following tests except :
- (1) Isotope renography
 - (2) Plasma renin estimation
 - (3) Plasma metanephrine estimation
 - (4) Renal Doppler flow measurements
41. Patient is said to have isolated systolic hypertension if his blood pressure reading is :
- (1) Systolic BP \geq 140 and diastolic BP $<$ 90 mm Hg
 - (2) Systolic BP \geq 140 and diastolic BP $>$ 90 mm Hg
 - (3) Systolic BP \geq 150 and diastolic BP 90 mm Hg
 - (4) Systolic BP \geq 140 and diastolic BP 90 mm Hg
42. When measuring blood pressure of an adult, when using mercury sphygmomanometer, following points must be adhered to except :
- (1) Lower edge of the cuff should be 2.5 cms above the antecubital fossa
 - (2) Stethoscope diaphragm must be just below the cuff edge
 - (3) Width of the cuff must be more than 33% of the length of arm
 - (4) Length of the bladder must be enough to cover more than 60 percent of the circumference of the limb
43. Systolic Blood pressure due to anxiety / white coat Hypertension/ can go up by :
- (1) 7 to 17 mm of Hg
 - (2) 17 mm to 27 mm of Hg
 - (3) 27 to 37 mm of Hg
 - (4) 1 mm to 7 mm
44. As per JWC VII classification of Blood Pressure, normal blood pressure is :
- (1) 120/80 mm Hg
 - (2) $< \frac{120}{80}$ mm of Hg
 - (3) $< \frac{130}{90}$ mm of Hg
 - (4) $< \frac{130}{80}$ mm of Hg
45. Following statements about hypertension are true except :
- (1) For individuals 40-70 years of age, each increment of 20 mm Hg in systolic BP or 10 mm Hg in diastolic BP doubles the risk of CVD across the entire BP range from 115/75 to 185/115 mm Hg
 - (2) There is increased prevalence of hypertension in patients with diabetes mellitus as compared to general population
 - (3) Nocturnal hypertension is common in patients with chronic kidney disease
 - (4) In hypertensives ; 50% percent of the stroke are haemorrhagic and 50% percent ischaemic (thrombotic or embolic)

46. A 60 yr old hypertensive patient has come to the OPD for routine check-up. He gives a history of rise in blood pressure during OPD visits regularly, though the pressure remains well controlled otherwise. The most likely diagnosis is :
- (1) renal hypertension (2) white coat hypertension
(3) both of the above (4) none of the above
47. A patient had come to the OPD for routine check-up. On examination his blood pressure was 120/85 mm of Hg. According to JNC VII classification, he was :
- (1) normal (2) pre-hypertensive
(3) stage 1 hypertensive (4) none of the above
48. A 25 yr old man presented with a blood pressure of 200/110 mm of Hg at the emergency. He was shifted to the ICCU and was started on nitroglycerine infusion, as well as oral anti-hypertensives. On second day, the blood pressure was well controlled and nitroglycerine was stopped. On third day, he suddenly developed acute pulmonary oedema with a blood pressure of 210/120 mm of Hg. He was found to have an abdominal bruit. The most specific diagnostic test to detect the cause of hypertension will be :
- (1) 24-hr urinary metanephrine (2) 24-hr urinary cortisol
(3) CT-scan of adrenals (4) renal arteriography
49. A 60 yr old diabetic, hypertensive male with chronic kidney disease was found to have a blood pressure of 150/90 on olmesartan 40 mg o.d. The following should be done as a next step :
- (1) intensity salt restriction (2) try a higher dose of olmesartan
(3) add Amlodipine (4) increase the frequency of hemodialysis
50. A 70 yr old man had presented to the Emergency with acute shortness of breath. On examination he was found to have bilateral basal crepps and Papilledema along with a blood Pressure of 220/140 mm of Hg. All of the following drugs can be used in this situation except :
- (1) nitroglycerine infusion (2) enalapril I.V. balus
(3) frusemide I.V. balus (4) sublingual nifedepine
51. A 60 yr man with recent myocardial infarction presented to the OPD with a blood pressure of 160/90 mm of Hg. He had an ejection fraction of 45%. Following are indicated to treat his hypertension except :
- (1) indapamide (2) bisoprolol
(3) ramipril (4) valsartan
52. A patient with myocardial infarction who was hamodynamically stable previously, suddenly went into acute pulmonary edema. On examination, he had a short systolic murmur at the apex. The pathophysiology of his heart failure is :
- (1) pressure overload (2) myocardial damage
(3) volume overload (4) arrhythmia

53. A 24yr old lady with mild mitral stenosis presented with acute pulmonary edema. On examination, she was febrile with an irregularly irregular pulse of 160 bpm. Her chest x-ray showed lower lobe consolidation. Her acute pulmonary edema was precipitated by :
- (1) fever
 - (2) atrial fibrillation with fast ventricular rate
 - (3) pneumonia
 - (4) all of the above
54. A patient who had sustained anterior myocardial infarction recently was found to have dilated left ventricular cavity, dilated left atrium and moderate mitral regurgitation secondary to coaptation failure of the mitral leaflets on echo cardiography. All of the following adaptive mechanisms of heart failure come into play in this case, except.
- (1) Frank - Starling mechanism
 - (2) Renin - Angiotensin - Aldosterone system
 - (3) Atrial contraction
 - (4) Myocardial remodeling
55. A 40yr old gentleman presented with acute pulmonary edema. On examination he was found to have S_4 and an ejection systolic murmur that increased on Valsalva maneuver. He was having :
- | | |
|-------------------------|-------------------------|
| (1) Right heart failure | (2) High output failure |
| (3) Systolic failure | (4) Diastolic failure |
56. A patient with constrictive pericarditis presented with heart failure. He is likely to have all except :
- (1) tender hepatomegaly.
 - (2) pedal edema
 - (3) prominent bilateral basal crepitations
 - (4) anorexia and nausea
57. A patient with severe mitral stenosis presented with acute heart failure. The chest x-ray showed prominent upper lobar veins and "bat wing" pattern. The pulmonary venous pressure is likely to be :
- | | |
|--------------------|-----------------------|
| (1) above 12 mm Hg | (2) above 18 mm Hg |
| (3) above 25 mm Hg | (4) none of the above |
58. A long distance runner suddenly found himself breathless in walking up three flights of stairs. He is in NYHA class :
- | | | | |
|-------|--------|---------|--------|
| (1) I | (2) II | (3) III | (4) IV |
|-------|--------|---------|--------|

59. A 60 yr old man presented with acute shortness of breath. On examination he had few crepitations and ronchi. His total count was $26,000/\text{mm}^3$. The most sensitive test to diagnose it as cardiogenic or non-cardiogenic will be :
- (1) chest x-ray (2) pulmonary catheterization
(3) pro-calcitonin level (4) BNP level
60. A patient presented to the emergency with acute shortness of breath along with pink frothy expectoration. On examination he had tachycardia, tachypnea and bilateral diffuse crepitations. All should be done for the patient except :
- (1) prop him up (2) administration of oxygen through mask
(3) I.V. fentanyl administration (4) I.V. furosemide administration
61. A obese patient with osteo arthritis was detected to have dilated cardiomyopathy. Following should be advised for him except :
- (1) fluid and water restriction
(2) salt restriction
(3) weight reduction
(4) continuing NSAID at a high dose for controlling arthritis pain.
62. A patient went into acute pulmonary edema following myocardial infarction. Following drugs should be started for him except :
- (1) furosemide (2) aldactone
(3) ramiperil (4) carvedilol
63. A 60 yr old gentleman with chronic renal failure and dilated cardiomyopathy presented to the out-patient department. Following drugs should be prescribed cautiously for him, except :
- (1) aldactone (2) ramipril
(3) digoxin (4) carvedilol.
64. A 65 yr old man with past history of myocardial infarction presented with shortness of breath. On examination his chest was clear. His echocardiography revealed dilated left ventricular cavity with an ejection fraction of 30% and his chest x-ray showed cardiomegaly. His prescription preferably should include :
- (1) propranolol (2) metoprolol
(3) carvedilol (4) nebivolol
65. A 40yr old lady with dilated cardiomyopathy presented with history of repeated hospitalization for failure, despite on adequate anti-failure measures. Her QRS duration in ECG was 160 msec and her ejection fraction by echocardiography was 25%. The next step in management will be :
- (1) stepping up of drug doses (2) ventricular assist device implantation
(3) cardiac transplantation (4) biventricular pacing

66. A 60 yr old man was brought to the emergency with acute anterior wall myocardial infarction and died there. Later on autopsy, his left anterior descending artery will show, as the incriminating lesions :
- (1) fatty streak
 - (2) fibrous plaque
 - (3) blood clot over a ruptured plaque
 - (4) none of the above
67. A patient presented to the out-patient department with recent history of myocardial infarction. The following histories should be taken for risk factor modification except :
- (1) diabetes
 - (2) heavy alcohol consumption
 - (3) personality
 - (4) family history of coronary artery disease
68. A patient with diabetes mellitus presented to the outpatient department with history of chest pain. Laboratory examination revealed hypertriglyceridemia. His coronary angiogram was normal. He should receive fenofibrate if the TG level is more than :
- (1) 150
 - (2) 300
 - (3) 450
 - (4) 600
69. A patient with myocardial infarction was found to have proximal 100% occlusion of the right coronary artery on coronary angiogram. All the following areas of the heart can be affected, except :
- (1) right atrium
 - (2) conducting system of the heart
 - (3) anterior 2/3rd of the inter-ventricular septum
 - (4) posterior 1/3rd of the inter-ventricular septum
70. A patient presented with stable angina at the out-patient department. On subsequent coronary angiography, he was found to have a 90% lesion in the LAD. He is expected to have all of the following except :
- (1) dilatation of resistance vessels
 - (2) low subendocardial to epicardial flow
 - (3) autoregulation of coronary collaterals
 - (4) endothelial dysfunction
71. A patient who underwent angioplasty - stenting to the LAD was discharged on 80mg Atorvastatin. He came back after 3 weeks with complaints of pain in the legs. The blood test to be done in this case is :
- (1) CPK
 - (2) SGOT
 - (3) SGPT
 - (4) Creatinine

72. A 24yr old man presented to the emergency with angina. His ECG showed ST depression in the antero-lateral leads. Laboratory examination revealed a very high ESR. On careful re-evaluation, he was found to have a left subclavian bruit. The most likely cause of coronary artery involvement will be :
- (1) atherosclerosis (2) spasm
(3) non-specific aorta-arteritis (4) embolism
73. A patient with recent myocardial infarction was admitted to the ICCU with acute left ventricular failure. Echo cardiography revealed an ejection fraction of 35%. After initial stabilization, the most appropriate diagnostic test to be done will be :
- (1) stress echocardiography (2) myocardial perfusion scan
(3) coronary angiography (4) exercise ECG testing
74. A 70yr old man presented with history of angina for last 1 month, which intensified and persisted even at rest for last 48hrs. According to Braunwald's classification, he belong to :
- (1) Class I (2) Class II (3) Class III (4) none of the above
75. A 60yr old man presented with profound hypotension in the emergency. He was diabetic and hyperlipidemic. His ECG showed new-onset LBBB. The most likely diagnosis is :
- (1) myocardial infarction (2) pulmonary embolism
(3) aortic dissection (4) none of the above
76. A patient of acute MI has ventricular ectopics. Which pattern is most dangerous :
- (1) Presence of couplets (2) R on T phenomenon
(3) > 20 ectopis per minute (4) Ectopy of more than one mosphoegy
77. A 60 yr old man presented with acute myocardial infarction of 3 hours duration. Coronary angiography revealed occlusion of the proximal LAD. In his ECG, the ST. elevation will be seen in :
- (1) $V_1 - V_3$ (2) $V_4 - V_6$ (3) $V_1 - V_6$ (4) II, III, avF
78. A 40 yr man presented to the emergency with severe angina of 3 hours duration. His ECG showed tall T waves. The blood test that can help in diagnosis in this case is :
- (1) CK-MB (2) Troponin-I (3) Troponin-T (4) Myoglobin
79. A patient presented with myocardial infarction of 3 hours duration in the emergency. All of the following drugs would be used in his management, except :
- (1) tpA (2) I.V. beta-blockers
(3) acetylsalicylic acid (4) calcium channel blockers

80. A patient presented to the emergency with myocardial infarction of 8 hrs duration. The best possible treatment that can be offered to him is :
- (1) streptokinase
 - (2) streptokinase and eptifibatide
 - (3) primary coronary angioplasty and stenting
 - (4) streptokinase and heparin
81. A patient presented to the emergency with acute chest pain and sweating. On examination his blood pressure was 70/40 mm of Hg. His ECG showed ST-elevation in $V_1 - V_4$. The immediate treatment modality for this patient will be :
- (1) IABP
 - (2) anti-coagulation
 - (3) thrombolytic therapy
 - (4) angiography and primary angioplasty
82. A patient presented to the emergency with syncope. His ECG revealed ST-elevation in the inferior leads and Type II second-degree AV block. On 5th day of hospitalization he developed RBBB with a drop in heart rate in addition to the existing changes. The mode of treatment will be :
- (1) temporary pacemaker
 - (2) permanent pacemaker
 - (3) I.V. atropine
 - (4) none of the above
83. A 70 yr old man presented to the emergency with gross hypotension. His ECG showed ST-elevation in the inferior leads. Echocardiography in this case is most likely to reveal :
- (1) papillary muscle rupture
 - (2) ventricular septal defect
 - (3) chordal rupture
 - (4) global hypokinesia and dilatation of the right ventricle.
84. A 60 yr old man with inferior wall MI of 1 week duration suddenly went into acute left ventricular failure. On examination he had a mild-systolic murmur at the apex. The most likely cause is :
- (1) papillary muscle rupture
 - (2) ventricular septal defect
 - (3) right ventricular infarction
 - (4) none of the above
85. A patient suddenly collapsed in the emergency. The monitor showed a wide QRS tachycardia at a rate of 170bpm. The most appropriate treatment will be :
- (1) ventilation
 - (2) chest compression
 - (3) I.V. amiodarone
 - (4) defibrillation

86. A patient with dilated cardiomyopathy had a blood pressure of 80/40 mm of Hg. His bi-ventricular pacing is planned after 48 hrs. The ionotrope to be used in this case is :
- (1) dopamine (2) dobutamine
(3) epinephrine (4) norepinephrine
87. A patient with recent anterior wall MI presented with angina. His echocardiography showed thinned out and akinetic anterior wall with an ejection fraction of 35%. On angiography he had 90% lesions in LAD and LCX. Which test should be performed before deciding the strategy for revascularization :
- (1) MUGA scan (2) Thallium scan
(3) TMT (4) Resting echocardiography
88. A 30 yr old lady with mitral stenosis presented with acute shortness of breath. Her pulse was irregularly irregular with a rate of 170 bpm. Her blood pressure was 110/70 mm of Hg and her chest was clear. The treatment of choice will be :
- (1) electrical cardioversion (2) I.V. diltiazem
(3) I.V. morphine (4) emergency balloon mitral valvotomy
89. After balloon mitral valvotomy, a patient suddenly went into gross hypotension. On examination he had tachycardia, pulsus paradoxus and elevated JVP, with a further rise in inspiration. The immediate treatment of choice will be :
- (1) IABP (2) I.V. ionotropes
(3) pericardiocentesis (4) none of the above
90. A 70 yr old man suddenly collapsed in the emergency. He had deep venous thrombosis of right leg. His ECG showed RBBB. The most specific diagnostic test in this case will be :
- (1) echocardiography (2) d-dimer assay
(3) V Q scan (4) CT-pulmonary angiogram
-