

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

Term-End Examination

June, 2015

MCC-004 : COMMON CARDIOVASCULAR DISEASES – II

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. Three separate sets of blood culture, each from a separate venipuncture, obtained during 24 hours in patients with infective endocarditis is essential to demonstrate
 - (1) Sustained bacteremia
 - (2) Transient bacteremia
 - (3) Fastidious organisms
 - (4) All of the above

2. A patient with infective endocarditis developed small, pink, macular rashes on the palms and soles that do not fade with blanching. The diagnosis is
 - (1) Osler's node
 - (2) Roth spots
 - (3) Janeway lesions
 - (4) None of the above

3. Following are the immunologic manifestations of infective endocarditis *except*
 - (1) Osler's node
 - (2) Janeway lesions
 - (3) Roth spots
 - (4) Glomerulonephritis

4. A patient presented with a temperature of 102 degrees Fahrenheit and newly developed mitral regurgitation murmur. His blood culture shows growth of streptococcus viridans. According to Modified Duke Criteria, he has
 - (1) Possible infective endocarditis
 - (2) Definite infective endocarditis
 - (3) No infective endocarditis
 - (4) None of the above

5. All of the following are true about native valve endocarditis due to HACEK organisms *except*
 - (1) Organisms are fastidious and slow growing
 - (2) Usually detected in blood culture within 5 days of incubation
 - (3) Has a high incidence of systemic emboli
 - (4) Usually produces small vegetation

6. An intravenous drug abuser presented with fever, pleuritic chest pain and a lower parasternal localized pansystolic murmur. His blood culture can show all of the following organisms *except*
- (1) Staphylococcus aureus
 - (2) Coagulase negative staphylococci
 - (3) Streptococci
 - (4) Enterococci
7. Following hemodynamic situations can initiate NBTE by causing endothelial injury *except*
- (1) A high velocity jet striking the endothelium.
 - (2) Flow from a high-pressure to a low-pressure chamber
 - (3) Flow across a narrow orifice at a high velocity
 - (4) None of the above
8. Congenital heart disease that will require infective endocarditis prophylaxis is
- (1) VSD
 - (2) PDA
 - (3) ASD closed with device during the first six months of the procedure
 - (4) None of the above
9. Following are true about the response to antibiotic therapy in infective endocarditis *except*
- (1) 90% become afebrile by second week of treatment
 - (2) Fever persists longer in patients with S. aureus infection
 - (3) Persistence of fever of a low percentage of decline in C-reactive protein more than 10 days after initiation of therapy is associated with increased mortality
 - (4) None of the above
10. All of the following can produce hemoptysis in mitral stenosis *except*
- (1) Bronchitis
 - (2) Pulmonary oedema
 - (3) Pulmonary infarction
 - (4) Pulmonary infections

11. Following differentiates left atrial myxoma from mitral stenosis *except*
- (1) Lesser incidence of mid-diastolic murmur
 - (2) Occasional opening snap
 - (3) Longer period of symptom
 - (4) Higher incidence of systolic murmur
12. Radiological findings of mitral stenosis includes all of the following *except*
- (1) Straightening of the left heart border
 - (2) Double contour of left atrium
 - (3) Elevation of right main stem bronchus
 - (4) Redistribution of blood flow to the upper lobe
13. Rupture of chordae tendinae can occur in
- (1) Acute myocardial infarction
 - (2) Mitral valve prolapse
 - (3) Bacterial endocarditis
 - (4) All of the above
14. Severe mitral regurgitation is associated with all of the following *except*
- (1) Left ventricular S3
 - (2) Short mid-diastolic flow rumble
 - (3) Hyperkinetic apex
 - (4) Apical systolic thrill
15. All of the following features differentiate acute severe mitral regurgitation from the chronic one *except*
- (1) Late systolic decrescendo murmur
 - (2) Prominent 'v' wave in the JVP
 - (3) Marked elevation of left atrial pressure
 - (4) Dilated left atrium

- 16.** Mitral valve surgery in mitral regurgitation is indicated in all of the following *except*
- (1) Acute severe mitral regurgitation
 - (2) Chronic severe mitral regurgitation with NYHA Class-II symptoms
 - (3) Asymptomatic chronic severe mitral regurgitation with end-systolic diameter ≥ 40 mm
 - (4) Asymptomatic chronic severe mitral regurgitation with ejection fraction $> 60\%$
- 17.** All of the following are predictors of poor outcome after aortic valve replacement for aortic stenosis *except*
- (1) Advanced age > 70 years
 - (2) Ejection fraction $< 45\%$
 - (3) Male gender
 - (4) Atrial fibrillation
- 18.** All of the following can cause angina in aortic stenosis *except*
- (1) Increased myocardial oxygen demand
 - (2) Decreased coronary reserve
 - (3) Decreased sub-epicardial supply
 - (4) Calcium emboli
- 19.** All of the following indicate severe aortic stenosis *except*
- (1) Left ventricular heave
 - (2) Pulsus parvus et tardus
 - (3) Paradoxical split
 - (4) Grade IV ejection systolic murmur
- 20.** Coanda effect is seen in
- (1) Sub-valvular aortic stenosis
 - (2) Supra-valvular aortic stenosis
 - (3) Valvular aortic stenosis
 - (4) None of the above

- 21.** All of the following signs indicate significant aortic regurgitation *except*
- (1) Landolfi's sign
 - (2) Hill's sign
 - (3) Carvallo's sign
 - (4) de Musset's sign
- 22.** Pulsus bisferiens may be seen in
- (1) Severe aortic regurgitation
 - (2) Aortic stenosis with aortic regurgitation
 - (3) Hypertrophic obstructive cardiomyopathy
 - (4) All of the above
- 23.** Following features differentiate acute aortic regurgitation from chronic one *except*
- (1) Increased left ventricular compliance
 - (2) Decreased effective stroke volume
 - (3) Increased peripheral vascular resistance
 - (4) Increased heart rate
- 24.** All of the following are complications of prosthetic heart valves *except*
- (1) Systemic embolism
 - (2) Infective endocarditis
 - (3) Hemolytic anemia
 - (4) Congestive heart failure
- 25.** Most reliable evidence for recent GAS infection, among the following, is
- (1) Positive throat culture
 - (2) Positive rapid antigen test
 - (3) Positive blood culture
 - (4) Elevated or rising titre

- 26.** Following are true about "Juvenile Mitral Stenosis" *except*
- (1) Early development of established rheumatic disease
 - (2) Rapid progression to mitral stenosis
 - (3) Poses a major problem in India
 - (4) Only occurs in juvenile population
- 27.** Following are true about rheumatic valvulitis *except*
- (1) Oedema of valves occur in early stage
 - (2) Verrucae formation in chordae tendinae is uncommon
 - (3) Hyaline degeneration leads to regurgitant valve
 - (4) Fibrosis leads to stenotic valve
- 28.** Following are true about rheumatic carditis *except*
- (1) May be linked to carditis during recurrences
 - (2) Mitral stenosis is the commonest valvular lesion
 - (3) 40% of ARF develop carditis
 - (4) 66% of carditis develop RHD
- 29.** Following are true about ASO titre in rheumatic fever *except*
- (1) > 250 Todd units is positive in adults
 - (2) > 333 Todd units is positive in children
 - (3) Is always positive during carditis
 - (4) May take 4 – 6 months to return to normal
- 30.** In acute rheumatic fever
- (1) Polymorphonuclear leucocytosis may be found
 - (2) Positive throat culture is seen in more than 50% patients
 - (3) Rapid antigen detection kits are more sensitive than throat culture
 - (4) ECG may show shortened PR interval

- 31.** Recurrence of acute rheumatic fever
- (1) Occurred in up to 17% patients in the pre-penicillin era
 - (2) Seen more frequently in young children
 - (3) Seen more frequently 4 years after the first attack
 - (4) Has no effect on myocardial function
- 32.** Oral antibiotic used for primary prophylaxis of rheumatic fever includes all of the following *except*
- (1) Clindamycin
 - (2) Nafcillin
 - (3) Ciprofloxacin
 - (4) Amoxicillin
- 33.** Following are true about the guidelines for bed-rest in patients with carditis in acute rheumatic fever *except*
- (1) 2-weeks bed-rest and gradual ambulation over 2 weeks without cardiac enlargement
 - (2) Strict bed-rest till heart failure is present and gradual ambulation over 3 months
 - (3) 6-weeks bed-rest and gradual ambulation over 6 weeks with cardiac enlargement
 - (4) Bed-rest is a must till fever, leucocytosis, ESR and CRP are settled
- 34.** In rheumatic carditis all of the following are true *except*
- (1) Salicylates are not beneficial
 - (2) Corticosteroids may be considered in severe carditis
 - (3) Salicylates should be given during corticosteroid tapering and continued for 2 to 4 weeks
 - (4) Chorea is managed by corticosteroids
- 35.** Following are true about infective endocarditis in children *except*
- (1) Mitral valve of structurally normal heart is typically involved in neonates
 - (2) Vast majority of children affected after neonatal period have structural heart disease
 - (3) 50% of children with infective endocarditis on congenital defects develop infection after surgery
 - (4) Endocarditis in neonates is caused primarily by *S. aureus*, coagulase negative staphylococci and group-B streptococci

36. Following is true about infective endocarditis in MVP :

- (1) Accounts for 7 – 30% of adult NVE
- (2) Risk is largely confined to women
- (3) Risk is increased in patients younger than 45 years
- (4) Risk is related to valvular thickening > 10 mm

37. In prosthetic valve endocarditis

- (1) Risk is greatest during the initial 12 months after valve surgery
- (2) During the initial months bioprosthetic valves are at greatest risk
- (3) Many cases with onset between 60 days and 1 year after surgery are likely to be nosocomial
- (4) Can result in prosthesis dehiscence

38. Infective endocarditis in intravenous drug abusers

- (1) Commonly involves multiple valves
- (2) Involves structurally normal valve in 75 – 93%
- (3) Aortic valve is commonly affected
- (4) *Candida albicans* in the commonest organism

39. Following are true about microorganisms causing infective endocarditis *except*

- (1) Viridans Streptococci causes 30 – 65% of NVE cases unrelated to drug abuse
- (2) *Staphylococcus epidermidis* is important in the setting of implanted devices
- (3) HACEK group of organisms affect normal valves
- (4) Enterococci account for 5 – 15% of cases of NVE

40. Non-bacterial thrombotic endocarditis (NBTE)

- (1) Occurs on the ventricular surface of tricuspid valve
- (2) Are platelet-thrombin deposits found at the valve closure contact line
- (3) Is caused by a flow across large orifice at low velocity
- (4) Bacteria deposits maximally at the high pressure sink immediately beyond an orifice

41. The clinical manifestations of infective endocarditis result from all of the following *except*
- (1) Local destructive effects of intracardiac infection
 - (2) Embolization of bland or septic fragments of vegetations
 - (3) Hematogenous seeding during bacteremia
 - (4) Cytotoxic T-cell mediated injury
42. Following is true about clinical manifestations of infective endocarditis :
- (1) Osler's nodes are pathognomonic for infective endocarditis
 - (2) Janeway lesions are due to immune complex deposition
 - (3) Fever and new murmur are the hallmarks
 - (4) Roth spots are frequent findings
43. Approximate amount of fluid in moderate pericardial effusion is
- (1) < 100 ml
 - (2) 100 – 500 ml
 - (3) 500 – 600 ml
 - (4) 600 – 700 ml
44. A definitive diagnosis of infective endocarditis is made when at least
- (1) One major and two minor Duke clinical criteria are fulfilled
 - (2) Three major Duke clinical criteria are fulfilled
 - (3) Five minor Duke clinical criteria are fulfilled
 - (4) One major and five minor Duke clinical criteria are fulfilled
45. Highly penicillin resistant streptococcal endocarditis can be treated by all of the following *except*
- (1) Aqueous penicillin G + Gentamicin
 - (2) Ampicillin + Gentamicin
 - (3) Vancomycin + Gentamicin
 - (4) Nafcillin + Rifampicin

46. 9 year old girl weighing 19 kg admitted with fever, migrating joint pains, sore throat since few weeks. Her ASO titre increased and ECG showed sinus tachycardia. Clinically she was found to have rheumatic fever. Which is the drug of choice ?
- (1) Benzathine penicillin G 6 lakhs units
 - (2) Benzathine penicillin G 12 lakhs units
 - (3) Benzathine penicillin G 8 lakhs units
 - (4) Crystalline penicillin 12 lakhs units
47. "MacCallum's patch" is seen in which of the following conditions ?
- (1) Rheumatoid arthritis
 - (2) Systemic lupus erythematosus
 - (3) Rheumatic fever
 - (4) Infective endocarditis
48. Which of the following statements is **wrong** regarding major criteria of rheumatic fever ?
- (1) Carditis
 - (2) Arthralgia
 - (3) Subcutaneous nodules
 - (4) Erythema marginatum
49. Which is the pathogenetic organism for rheumatic fever ?
- (1) Group-B Beta hemolytic streptococcus
 - (2) Group-A Beta hemolytic streptococcus
 - (3) Group-C streptococcus viridans
 - (4) Staphylococcus
50. Which is the commonest pathogenic organism for native valve endocarditis ?
- (1) HACEK group organisms
 - (2) Coagulase negative staphylococci
 - (3) Enterococcus
 - (4) Streptococcus viridans

- 51.** Which is the commonest symptom of infective endocarditis ?
- (1) Chills
 - (2) Fever
 - (3) Myalgia
 - (4) Dyspnoea
- 52.** Major criteria of modified Duke's classification includes all of the following *except*
- (1) Positive blood culture
 - (2) Positive echocardiogram
 - (3) New valvular regurgitation
 - (4) Fever
- 53.** All of the following features are seen in infective endocarditis *except*
- (1) Glomerulonephritis
 - (2) Osler's nodes
 - (3) Roth's spots
 - (4) Aschoff nodules
- 54.** Carey Coombs murmur is heard in which of the following conditions ?
- (1) Infective endocarditis
 - (2) Rheumatic carditis
 - (3) Bicuspid aortic valve
 - (4) Aortic regurgitation
- 55.** Pulsus paradoxus is seen in which of the following conditions ?
- (1) Aortic regurgitation
 - (2) Constrictive pericarditis
 - (3) Mitral regurgitation
 - (4) Aortic stenosis
- 56.** Collapsing pulse is seen in all of the following conditions *except*
- (1) Aortic regurgitation
 - (2) PDA
 - (3) Mitral regurgitation
 - (4) AV fistula

57. 53 year old male, a known case of rheumatic heart disease and S/P aortic valve replacement 4 years ago, on Warfarin 5 mg daily and his last INR was 2.5. He has been referred to you for clearance for colonoscopy from gastroenterologist. What would you recommend ?

- (1) Stop tab. Warfarin 7 days before and give 325 mg of Aspirin on the day of colonoscopy
- (2) Stop tab. Warfarin on the day of colonoscopy. Give inj. vitamin K . Once INR is < 1.5, he can be taken for colonoscopy
- (3) Stop tab. Warfarin 3 days before colonoscopy and admit him for heparinisation. Once INR is < 1.5, then do colonoscopy
- (4) Stop tab. Warfarin 10 days before colonoscopy and once INR is < 1.5, send him for colonoscopy.

58. 67 year old male presents with increasing symptoms of class-III NYHA dyspnoea and chest discomfort on exertion since 5 months. He had 2 episodes of near syncope while climbing stairs. He is normotensive and euglycemic. His BP is 136/40 mmHg, HR is 80 bpm, JVP normal, LV apical impulse is at axillary area, grade 3/6 ejection systolic murmur with mid peaking and early diastolic decrescendo murmur at base of the heart. His ECHO showed LV ejection fraction is 50%, Aortic valve is calcified with mean gradient of 28 mmHg, Mild AR. What would be your next advice to this patient ?

- (1) Medical management
- (2) Aortic valve replacement
- (3) Transesophageal echocardiography
- (4) Cardiac catheterization and coronary angiography

59. 29 year old female, known case of rheumatic heart disease and mitral stenosis. She walks daily for 40 minutes without any discomfort. She was evaluated 2 weeks ago at cardiology OP. Her pulse rate is 80/mt. Her blood pressure was 120/80 mmHg. Her transthoracic echocardiogram showed mean gradient across mitral valve was 4 mmHg. Mitral valve area was 1.8 cm². Pulmonary artery pressure was 28 mmHg. She wanted to have pregnancy. What would you recommend ?

- (1) Balloon mitral valvuloplasty
- (2) Mitral valve replacement before pregnancy
- (3) Proceed with pregnancy with betablocker
- (4) Avoid pregnancy

60. 46 year old male, driver by occupation, a known case of rheumatic heart disease and underwent mitral valve replacement with St. jude bileaflet valve 1 year ago. He has come to you with reference from dentist for clearance for dental extraction. He gives history of allergic reaction to inj. Ampicillin few months ago. What would you recommend for infective endocarditis prophylaxis for him ?
- (1) Nafcillin 2 gm 1 hour before the procedure
 - (2) Gentamicin 80 mg IV before the procedure
 - (3) Erythromycin 1 gm orally before the procedure
 - (4) Clindamycin 600 mg orally 1 hour before the procedure
61. 58 year old male, police by profession, asymptomatic at his normal activities. He was sent for routine evaluation. He was found to have grade 3/6 systolic murmur heard at precardium, apex of heart and base of the heart. Among the following conditions which is he least likely to have ?
- (1) Ventricular septal defect
 - (2) Aortic stenosis
 - (3) Mitral regurgitation due to prolapse of posterior leaflet
 - (4) Mitral regurgitation due to prolapse of anterior leaflet
62. In dynamic auscultation, all of the following manoeuvres are commonly employed *except*
- (1) Respiration
 - (2) Valsalva Manoeuvre
 - (3) Isometric exercise
 - (4) Pharmacological agents with sodium nitroprusside
63. Continuous murmur is heard in all of the following conditions *except* one :
- (1) Aortic stenosis and aortic regurgitation
 - (2) PDA
 - (3) Ruptured sinus of Valsalva
 - (4) AV Fistula
64. In a patient with mixed mitral valve disease, the following clinical feature suggest the presence of significant mitral valve regurgitation :
- (1) Atrial fibrillation
 - (2) Poor volume pulse
 - (3) Thrusting apex beat
 - (4) Opening snap

65. Which of the following statements regarding postpartum cardiomyopathy is *wrong* ?
- (1) Heart failure seen in last trimester of pregnancy
 - (2) Heart failure seen within 6 months of pregnancy
 - (3) LV failure recover completely in 50% of patients
 - (4) After complete recovery, can proceed to subsequent pregnancy
66. Loud P2 is heard in all of the following conditions *except*
- (1) Large ostium secundum ASD with PAH
 - (2) Large VSD with PAH
 - (3) Severe pulmonary valve stenosis
 - (4) Primary pulmonary hypertension
67. Bisferiens pulse is seen in which of the following conditions ?
- (1) Acquired aortic stenosis
 - (2) Congenital sub-valvular aortic stenosis
 - (3) Hypertrophic obstructive cardiomyopathy
 - (4) Congenital supra-valvular aortic stenosis
68. Which of the following drugs causes pericardial effusion ?
- (1) Amlodipine
 - (2) Hydralazine
 - (3) Mexilitine
 - (4) Amiodarone
69. Which is the commonest cause of mitral stenosis in India ?
- (1) Infective endocarditis
 - (2) Rheumatic fever
 - (3) Rheumatoid arthritis
 - (4) Mitral annular calcification
70. Which of the following treatments is *not* advised for hypertrophic obstructive cardiomyopathy ?
- (1) DDD pacing
 - (2) Aortic valve replacement
 - (3) Septal ablation
 - (4) Surgical myomectomy

- 71.** Dyspnoea in valvular heart disease is due to which of the following ?
- (1) Increased LV systolic pressure
 - (2) Increased left atrial pressure
 - (3) Increased right atrial systolic pressure
 - (4) Increased RV diastolic pressure
- 72.** Which is the cardinal symptom of mitral stenosis ?
- (1) Giddiness
 - (2) Palpitation
 - (3) Shortness of breath
 - (4) Pain abdomen
- 73.** What percentage of mitral stenosis patients give history of rheumatic fever ?
- (1) 20%
 - (2) 30%
 - (3) 40%
 - (4) 50%
- 74.** Which of the following is *not* an echo feature of severe mitral regurgitation ?
- (1) Left atrium size 4.0 – 5.0 cm
 - (2) Colour flow area is more than 40% of left atrial size
 - (3) Pulmonary vein systolic flow reversal
 - (4) Mitral regurgitation volume > 60 ml
- 75.** What is the pathogenic cause of hypertrophic obstructive cardiomyopathy ?
- (1) It is due to deposition of amyloidosis
 - (2) Due to deposition of cobalt
 - (3) Mutation in the gene- β cardiac myosin
 - (4) Due to deposition of excess iron

- 76.** Which of the following is *not* a feature of degenerative aortic stenosis ?
- (1) Commisural fusion
 - (2) Lipid accumulation
 - (3) Dystrophic calcification
 - (4) Fibrosis
- 77.** In Ortner's syndrome which of the following nerves is compressed ?
- (1) Right recurrent laryngeal nerve
 - (2) Left recurrent laryngeal nerve
 - (3) Right pharyngeal nerve
 - (4) Left pharyngeal nerve
- 78.** Canon 'a' waves in jugular venous pulse is seen in which of the following conditions ?
- (1) Atrial fibrillation
 - (2) Atrial flutter
 - (3) Cardiac tamponade
 - (4) Complete heart block
- 79.** Tapping apical pulse is seen in which of the following conditions ?
- (1) Mitral regurgitation
 - (2) Aortic stenosis
 - (3) Pulmonary stenosis
 - (4) Mitral stenosis
- 80.** Systolic retraction of chest in left axilla is seen in which of the following conditions ?
- (1) Cardiac tamponade
 - (2) Mitral stenosis
 - (3) Constrictive pericarditis
 - (4) Aortic regurgitation

81. Austin flint murmur is seen in which of the following valvular lesions ?
- (1) Severe mitral stenosis
 - (2) Severe aortic regurgitation
 - (3) Severe mitral regurgitation
 - (4) Severe tricuspid regurgitation
82. 21 year old female has been referred to you for the evaluation of her heart murmur noted during 2nd trimester of her first pregnancy. She is asymptomatic at her routine activities. On cardiovascular examination, her apical impulse was normal, on auscultation 1st and 2nd heart sounds are normal and has systolic click, which decreases with inspiration and has 2/6 ejection systolic murmur at left sternal border. Based on this clinical findings, the murmur that is most likely, is which of the following ?
- (1) Mitral regurgitation with mitral valve prolapse
 - (2) Bicuspid aortic valve with mild stenosis
 - (3) Congenital pulmonary valve stenosis
 - (4) Physiological murmur due to pregnancy
83. Tall 'a' waves in JVP are seen in all of the following conditions *except* one :
- (1) Tricuspid stenosis
 - (2) Pulmonary hypertension
 - (3) Atrial fibrillation
 - (4) Pulmonary stenosis
84. S4 is generated during which of the following parts of cardiac cycle ?
- (1) During atrial filling phase
 - (2) During ventricular relaxation
 - (3) During ventricular contraction
 - (4) During atrial contraction
85. Graham steel murmur is heard in which of the following conditions ?
- (1) Severe mitral regurgitation
 - (2) Severe pulmonary regurgitation
 - (3) Severe aortic regurgitation
 - (4) Severe tricuspid regurgitation

86. Increased shortness of breath in sitting or standing is seen in which of the following cardiac problems ?
- (1) Mitral stenosis
 - (2) Aortic regurgitation
 - (3) Atrial myxoma
 - (4) Mitral regurgitation
87. Which of the following statements on isometric exercise is *wrong* ?
- (1) Isometric exercise can be carried out by doing hand grip exercise for 20 – 30 seconds
 - (2) Left ventricular S3 will be accentuated during isometric exercise
 - (3) Systolic murmur of aortic stenosis is accentuated during isometric exercise
 - (4) Systolic murmur of HOCM is diminished
88. Which of the following statements is *wrong* regarding amyl nitrate used in dynamic auscultation ?
- (1) PDA murmur accentuated
 - (2) Mitral regurgitation murmur reduced
 - (3) S1 is augmented
 - (4) Murmur of VSD reduces
89. Mid-diastolic murmur at apex is heard in all of the following conditions *except*
- (1) Severe mitral stenosis
 - (2) Severe mitral regurgitation
 - (3) Large ventricular septal defect
 - (4) Severe aortic stenosis
90. Opening snap is heard in which of the following conditions ?
- (1) Mitral regurgitation with aortic stenosis
 - (2) Aortic stenosis with aortic regurgitation
 - (3) Atrial septal defect
 - (4) Severe mitral stenosis

SPACE FOR ROUGH WORK