

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

Term-End Examination

December, 2015

MCC-007 : CARDIO - VASCULAR RELATED DISORDERS

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. Half life of adenosine is :
 (1) < 10 sec (2) 100 sec (3) 60 sec (4) 16 sec
2. Diabetes Mellitus is characterized by :
 (1) Polyuria (2) Thirst (3) Weight loss (4) All of the above
3. HELLP syndrome includes all of the following except :
 (1) High platelet count (2) Elevated liver enzymes
 (3) Haemolysis (4) Low platelet count
4. Ankle - Brachial Index is a tool for the diagnosis of :
 (1) Body mass index (2) Varicose veins
 (3) Coarctation of Aorta (4) Peripheral arterial disease
5. Ketone bodies are all except :
 (1) Acetone (2) Glucose
 (3) Acetoacetate (4) Beta hydroxyl butyrate
6. Amiodarone is contraindicated in pregnancy due to :
 (1) Bradycardia in mother (2) QT prolongation in foetus
 (3) Foetal hypothyroidism (4) All of the above
7. Eclampsia is characterized by all except :
 (1) Hypertension (2) Seizures (3) Hyperglycaemia (4) Proteinuria
8. HbA1c indicates the glycaemic status of the past _____.
 (1) 4 months (2) 2 months (3) 3 months (4) 1 year
9. Which of the following is not a microvascular complication of diabetes ?
 (1) Ischemic Cardiomyopathy (2) Retinopathy
 (3) Nephropathy (4) Neuropathy
10. Which of the following antihypertensive is safest used during pregnancy ?
 (1) Telmisartan (2) Propranolol (3) Torsemide (4) Cilnidipine
11. All of the following increase during pregnancy except :
 (1) Systemic vascular resistance (2) Blood volume
 (3) Stroke volume (4) Heart rate

12. Potentially life threatening acute complication of Metformin is :
 (1) Lactic acidosis (2) Renal failure (3) Flatulence (4) Hypoglycaemia
13. S1q3t3 is sign of :
 (1) Myocardial infarction (2) Pulmonary embolism
 (3) Lbbb (4) None of the above
14. Least common source of pulmonary embolism is :
 (1) Amniotic fluid embolism (2) Calf vein thrombi
 (3) Large veins of the legs (4) Cardiothoracic surgery
15. Most definitive method for diagnosing Pulmonary Embolism :
 (1) Pulmonary angiography (2) v/q scan
 (3) ECG (4) Doppler study
16. Third generation sulfonylurea is :
 (1) Glimiperide (2) Tolbutamide (3) Glipizide (4) Gliclazide
17. False about Acarbose is :
 (1) Relatively weak anti diabetic (2) Chances of hypoglycaemia are less
 (3) It is relatively cheap (4) It can't be used in renal failure
18. Absolute deficiency of insulin results in :
 (1) NIDDM (2) IDDM (3) MODY (4) All of the above
19. MODY is a subset of :
 (1) Type I DM (2) Type II DM (3) Both (4) None
20. Obesity and _____diabetes are closely related .
 (1) Type I (2) Type II (3) Type III (4) Type IV
21. Goals of diabetes treatment are all except :
 (1) HbA1c < 7% (2) FBS < 126 mg/dl
 (3) PPBS < 200 (4) Use Insulin than OHAs
22. Pioglitazone was withdrawn due to :
 (1) Hepato - toxicity (2) Renal toxicity (3) Bone toxicity (4) Thyroid toxicity

23. Diet control is the _____ in Glycaemia control.
 (1) First step (2) Second step (3) Third step (4) Fourth step
24. Short acting insulin is :
 (1) Regular insulin (2) Lente insulin (3) Biphasic insulin (4) Glargine insulin
25. Which of the following is **not** an Oral Hypoglycaemic drug ?
 (1) Saxagliptin (2) Voglibose (3) Glimipreide (4) Indomethacin
26. Deficiency of _____ hormone causes Diabetes.
 (1) Glucagon (2) Insulin (3) Thyroxin (4) Cortisol
27. Diagnosis of Non Ketotic Hyperosmolar coma is done by all of the following except :
 (1) Blood pH < 7.3 (2) Absence of ketones
 (3) Serum bicarbonate > 20 mEq/L (4) All of the above are diagnostic
28. High levels of blood sugars over a long period of time results in _____ and _____ of lipoproteins.
 (1) Oxidation and reduction (2) Reduction and glycosylation
 (3) Oxidation and glycosylation (4) Addition and subtraction
29. Which of the following is **not** a macrovascular complication of diabetes ?
 (1) Hypertension (2) Retinopathy
 (3) Dyslipidaemia (4) Cerebro vascular disease
30. Which of the following is **not** a characteristic of Neuropathic foot ?
 (1) Warm (2) Foot pulses palpable
 (3) Foot pulses impalpable (4) Veins on dorsum of foot distended
31. Hammer toe deformity is seen in :
 (1) Neuropathic foot (2) Pregnancy
 (3) Down's syndrome (4) Patau's syndrome
32. Cilostazol is found to be useful in patients suffering from :
 (1) Diabetic nephropathy (2) Diabetic retinopathy
 (3) Diabetic foot (4) Ischaemic cardiomyopathy

33. Hallmark of endothelial changes occurring in capillaries of Diabetic patients is :
- (1) Thinning of the basement membrane
 - (2) Sequestration of the basement membrane
 - (3) Ulceration of basement membrane
 - (4) Thickening of basement membrane
34. Metabolism of glucose when glucose levels are very high is by _____ .
- (1) Sorbitol pathway
 - (2) Ergoterol pathway
 - (3) Alcohol pathway
 - (4) Amazon pathway
35. Diabetic maculopathy is a stage seen in :
- (1) Diabetic nephropathy
 - (2) Diabetic neuropathy
 - (3) Diabetic foot
 - (4) Diabetic retinopathy
36. Cotton wool spots in Diabetic retinopathy indicate :
- (1) Focal hyperaemia
 - (2) Focal ischaemia
 - (3) Focal proliferation
 - (4) Focal haemorrhage
37. Cataracts in diabetics :
- (1) Occur early and progress rapidly
 - (2) Occur early and progress slowly
 - (3) Occur late and progress rapidly
 - (4) Occur late and progress slowly
38. Diabetic mononeuropathy affecting the ocular muscles is :
- (1) Permanent
 - (2) Lasts only 2-6 months and is reversible
 - (3) Lasts > 1 year and is not reversible
 - (4) Lasts > 5 years and may be reversible
39. Laser photocoagulation is done in :
- (1) Exudative maculopathy
 - (2) Proliferative retinopathy
 - (3) Both
 - (4) None
40. The following are the symptoms of Autonomic Neuropathy :
- (1) Gustatory sweating
 - (2) Focal loss of sweating
 - (3) Hypoglycaemia unawares
 - (4) All of the above

41. The commonest vessels involved in Diabetics which cause Lacunar Infarcts are :
- (1) Small penetrating vessels of the brain and brain stem
 - (2) Large penetrating vessels
 - (3) Medium penetrating vessels
 - (4) None of the above
42. Complications of ischemic foot are all except :
- (1) Caludication
 - (2) Painful ulceration
 - (3) Painless ulceration
 - (4) Rest pain
43. ACE Inhibitors preferentially dilate the _____ arteriole of the glomerulus.
- (1) Afferent
 - (2) Efferent
 - (3) Both
 - (4) ACE Inhibitors have independent action regardless of the arterioles
44. In Asthmatics with diabetes and IHD, to manage tachycardia, you may use _____ with ACE Inhibitors.
- (1) Metoprolol
 - (2) Nifedipine
 - (3) Amlodipine
 - (4) Atenolol
45. A diabetic patient is more prone for renal injury from :
- (1) NSAIDs
 - (2) Contrast agents
 - (3) Aminoglycosides
 - (4) All of the above
46. According to broca's formula, the minimum amount of calories needed for basal metabolic activities is _____ Kcal/kg body weight.
- (1) 11
 - (2) 22
 - (3) 33
 - (4) 44
47. Sweetening agents available are all except :
- (1) Saccharin
 - (2) Aspartame
 - (3) Acetone
 - (4) Acesulfame
48. Insulin secretagogues are all except :
- (1) Glipizide
 - (2) Glimiperide
 - (3) Tolbutamide
 - (4) Spiromide
49. Glimiperide is a _____ generation sulphonylurea.
- (1) 1st
 - (2) 2nd
 - (3) 3rd
 - (4) 4th
50. The most easily available Insulin now a days is :
- (1) Porcine insulin
 - (2) Bovine insulin
 - (3) Genetically engineered insulin
 - (4) Autologous insulin

51. True about Urogenital Syndrome in diabetics is :

- (1) Causes painful retention of urine
- (2) It results in relatively small residual post voiding urine
- (3) Ultimately the bladder becomes more contractile leading to retention
- (4) When the intravesical pressure increases more than the pressure of the internal sphincter, overflow incontinence occurs

52. At each visit for a diabetic patient, all of the following has to be checked except :

- (1) Weight
- (2) HbA1c
- (3) FBS and PPBS
- (4) ECG

53. The following may not be done annually in diabetic patients to detect chronic complications :

- (1) ECG
- (2) Eye Check - up
- (3) USG abdomen
- (4) Feeling of distal pulses

54. True about diabetes in pregnancy is :

- (1) On the day of delivery, the insulin requirement will fall dramatically to preconception levels
- (2) There is a progressive drop in insulin requirement till 34 - 36 weeks
- (3) Control becomes easier as the risk of spontaneous abortion increases in 2nd trimester
- (4) During 1st trimester, due to frequent vomiting, the insulin requirement may increase

55. During pregnancy, the rise in blood volume ranges from 20-100% with an average of _____

- (1) 25%
- (2) 50%
- (3) 75%
- (4) 60%

56. Cardiac output reaches plateau at _____ of pregnancy.

- (1) 20th week
- (2) 24th week
- (3) 28th week
- (4) 32nd week

57. The blood pressure response during pregnancy is the following except :

- (1) BP starts to fall during 1st trimester
- (2) Maximum fall is in mid pregnancy
- (3) BP returns to pre gestational levels before term
- (4) Reduction in systemic vascular resistance due to reduced vascular tone is responsible for the rise in BP during pregnancy

58. Supine Hypotension Syndrome of Pregnancy occurs with significant fall in heart rate and BP in _____ of patients.
- (1) 11% (2) 22% (3) 33% (4) 44%
59. Cervical venous hum during pregnancy is heard in :
- (1) Right supra clavicular fossa (2) Left supra clavicular fossa
(3) Lower left sterna border (4) Epigastric region
60. X-ray and pregnancy, true statement is :
- (1) Since the radiation dose during routine X-ray is minimal, the potential for adverse biological effects from any amount of exposure to radiation during pregnancy must not be avoided
(2) Even though ECHO is available, X-ray still remains the most favourable investigation of choice in pregnancy
(3) The abdomen and pelvis need to be covered with lead material while taking X-ray in a pregnant woman
(4) Exposure during 10-50 days of gestation does not cause teratogenic effect
61. Foeto - placental unit, false is :
- (1) Unbound free drug only can pass through the placental barrier
(2) Non ionized lipid soluble molecules can cross placenta than less lipid soluble ones
(3) Maternal and foetal pH influences the crossing the placenta
(4) All the above are true
62. Pregnancy and drug metabolism, false is :
- (1) The affinity of the drug to bind to foetal plasma proteins may be different from that of maternal proteins
(2) Most of the drugs are primarily excreted by diffusion back into the maternal compartment
(3) Congenital malformations are generally caused due to drug toxicity occurring during 3rd trimester
(4) All are true
63. Progesterone causes _____ in intestinal motility.
- (1) Increase (2) Decrease
(3) Has no effect (4) Progesterone causes hypermotility
64. Following is not a class IB antiarrhythmic :
- (1) mexiletine (2) procainamide (3) phenytoin (4) lidocaine

65. Drugs that reduce the rate of rise of action potential, primarily slow conduction and can prolong refractoriness minimally are all except :
(1) Flecainide (2) Propafenone (3) Moricizine (4) Spiromide
66. Amiodarone, true is :
(1) High amounts in breast milk
(2) Safe in nursing mothers
(3) Causes Uro developmental problems in foetus
(4) Low iodine content
67. Regarding safety in pregnancy, the following are categorized into Category B except :
(1) Oral Ampicillin (2) Nystatin vaginal preparation
(3) Parenteral cephalosporins (4) Oral nitrofurantoin
68. Furosemide in pregnancy, false is :
(1) Also used to treat pulmonary oedema associated with pre eclampsia
(2) Usual dose is initial 10 mg i.v
(3) There is no fixed dose for its use
(4) All are true
69. True about spironolactone :
(1) Anti aldosterone agent
(2) Used to treat angina
(3) Shows increasing mortality in severe heart failure patients
(4) Very safe in pregnancy
70. The following are thiazide diuretics :
(1) Hydrochlorothiazide (2) Chlorthiazide
(3) Chlorthalidone (4) All of the above
71. According to O Sullivan criteria for diagnosis of gestational diabetes, the glucose value at 1 hour should exceed :
(1) 190 mg (2) 100 mg (3) 240 mg (4) 300 mg
72. Impaired glucose tolerance in pregnancy is when the post prandial value is less than _____ mgs while the fasting blood glucose levels is in between 110-125 mgs.
(1) 140 (2) 120 (3) 160 (4) 190

73. Pre eclampsia is proteinuria with hypertension occurring after _____ weeks of gestation :
- (1) 12 weeks (2) 20 weeks (3) 24 weeks (4) 30 weeks
74. Which of the following is not an Phosphodiesterase Type III inhibitor ?
- (1) Amrinone (2) Milrinone (3) Vesnarinone (4) Furosemide
75. Which of the following is **not** an Adrenergic agonists ?
- (1) Dobutamine (2) Dopamine
(3) Nor adrenaline (4) All are adrenergic agonists
76. Which of the following drugs can cause foetal cyanide poisoning if used for more than 4 hours as infusion ?
- (1) Hydralazine (2) Labetalol
(3) Nifedipine (4) Sodium nitro prusside
77. Lifestyle modifications during pregnancy with hypertension includes all except :
- (1) Quit tobacco consumption (2) Restrict sodium intake to 5g
(3) Avoid alcohol (4) All the above are advised
78. Which of the following features differentiates chronic hypertension from pre-eclampsia ?
- (1) Primigravida patient
(2) Rare occurrence of LVH
(3) Presence of proteinuria
(4) More common in older patients more than 30 years of age
79. Ventricular tachycardia is _____ in pregnancy.
- (1) Rare
(2) Very common
(3) Never occurs
(4) When it occurs, it is seen in patients with structurally normal heart
80. Drug of choice for Idiopathic right ventricular outflow tract tachycardia is :
- (1) Alpha blocker (2) Beta blocker
(3) Calcium channel blocker (4) Ace Inhibitor
81. Non synchronized shock is delivered in :
- (1) Ventricular tachycardia (2) Ventricular fibrillation
(3) Supraventricular tachycardia (4) Complete heart block

82. True about pulmonary hypertension in pregnancy are all except :
- (1) Loud S2
 - (2) Cyanosis is an early feature
 - (3) Systolic murmur in pulmonary area
 - (4) Systolic pulsation of dilated pulmonary artery in 2nd left pulmonary artery
83. The following are the common clinical presentations of Pulmonary Embolism except :
- (1) Acute unexplained dyspnoea
 - (2) Acute right ventricular failure
 - (3) Pulmonary infarction or haemorrhage
 - (4) Acute pain abdomen
84. Clinical signs which should lead to search for pulmonary embolism except :
- (1) Unexplained sinus tachycardia or tachypnoea
 - (2) Fever, crepitations, pleural rub
 - (3) Hypertension
 - (4) Hypotension
85. Which of the following is a pre disposing factor for venous thromboembolism ?
- (1) Long distance air travel
 - (2) Coronary angioplasty
 - (3) Echocardiogram testing
 - (4) Ventricular tachycardia
86. Causes for Pulmonary Embolism are all except :
- (1) Venous thromboembolism
 - (2) Right sided infective endocarditis
 - (3) Right atrial myxoma
 - (4) All of the above
87. A patient who develops PAH without evidence for heart, lung or respiratory disease as a contributory cause is called as _____.
- (1) Primary pulmonary hypertension
 - (2) Secondary pulmonary hypertension
 - (3) Eisenmenger's complex
 - (4) Cyanotic heart disease

88. With respect to blood clotting, pregnancy is a _____ state.
- (1) Hypocoagulable state
 - (2) Hypercoagulable state
 - (3) Both hypercoagulable and hypocoagulable state
 - (4) Pregnancy has no effect on coagulability
89. LMWH. All of the following are true except :
- (1) It is an attractive alternative drug in pregnant women with prosthetic valves.
 - (2) It crosses placenta
 - (3) Low incidence of heparin induced thrombocytopaenia
 - (4) Sustained anticoagulant effect
90. All are causes for Cor Pulmonale except :
- (1) Chronic bronchitis
 - (2) Bullous emphysema
 - (3) Bronchial asthma
 - (4) Low altitude dwellers
-