POST GRADUATE DIPLOMA IN CLINICAL CARDIOLOGY (PGDCC)

Term-End Examination 00147

December, 2012

MCC-006 : CARDIO VASCULAR EPIDEMIOLOGY

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) *There will be* **90** *questions in this paper and each question carries* **equal** *marks.*

(vi) *There will be no negative marking for wrong answers.*

(vii) *No candidate shall leave the examination hall at least for one hour after the commencement of the examination.*

1. It has been estimated that in 2001 _____ million people died of cardiovascular diseases of all types.

   (1) 5   (2) 12   (3) 17   (4) 30

2. The most important causes for CVD deaths are the following except _____.

   (1) Coronary artery disease   (2) Hypertension

   (3) COPD   (4) Rheumatic heart diseases

3. CVD accounted for _____ percent of deaths in developing countries.

   (1) 46   (2) 23   (3) 17.1   (4) 58

4. South Asians include the following except _____.

   (1) China   (2) Malaysia   (3) India   (4) South Korea

5. In the autopsy study done in Singapore, immigrants of Indian origin had coronary artery disease seven times more than _____

   (1) Chinese   (2) Malaysians   (3) Caucasians   (4) Indonesians

6. On coronary angiography, Asian Indians are found to have the following except :

   (1) Smaller coronary vessels   (2) Larger coronary vessels

   (3) Fewer collaterals   (4) More diffuse disease

7. Coronary artery disease occurring before the age of _____ in men is considered as premature CAD.

   (1) 65 years   (2) 55 years   (3) 60 years   (4) 70 years

8. The prevalence of Coronary Artery Disease among young Asian Indians is about _____.

   (1) 12 - 16%   (2) 5 - 6%   (3) 25 - 30%   (4) 40 - 50%

9. Young CAD is defined as Coronary Artery Disease occurring before the age of _____.

   (1) 60 years   (2) 55 years   (3) 50 years   (4) 40 years

10. The mean age at first MI is about _____ lower for the Indian men compared to Europeans.

   (1) 12 months   (2) 5 years   (3) 10 years   (4) 20 years

11. Standardized Mortality Rate (SMR) for CAD is South Asian men is _____ caucasians.
    (1) Higher than
    (2) Lesser than
    (3) Equal to
    (4) Cannot be compared

12. Prevalence rate for CAD among urban population in India is _____.
    (1) 7.6% - 12.6%   (2) 4% - 5%   (3) 18.8% - 22.6%   (4) 26% - 30%

13. Prevalence rate for CAD among rural population in India is _____.
    (1) 1%   (2) 3.1% - 7.4%   (3) 15% - 18%   (4) 18.6% - 22%

14. The average monthly, household income in India is _____.
    (1) 49 US Dollars   (2) 100 US Dollars   (3) 600 US Dollars   (4) 18 US Dollars

15. The economic burden of CAD in India is reported to be _____.
    (1) Rupees 5 billion
    (2) Rupees 25 billion
    (3) Rupees 100 billion
    (4) Rupees 200 billion

16. Prevalence of hypertension in India is _____ in urban area.
    (1) 10 - 30.9%   (2) 3.5 - 5%   (3) 26.8 - 32.6%   (4) 18.4 - 21.8%

17. School study done in primary school children 6 - 10 years of age has shown a prevalence of RHD of _____ per 1000 children.
    (1) 10   (2) 6.8   (3) 3.9   (4) 12

18. Atherosclerotic process starts as early as _____ year of age.
    (1) 3   (2) 10   (3) 18   (4) 40

19. Acute coronary syndromes occur in _____ plaque.
    (1) Soft   (2) Hard   (3) Calcific   (4) Fibrous

20. Following are the non modifiable risk factors for Coronary Artery disease except :
    (1) Age
    (2) Gender
    (3) Family history of premature atherosclerosis
    (4) Obesity

21. The biochemical / physiological risk factors for CAD are the following except :
    (1) Hypertension (2) Dyslipidemia
    (3) Diabetes Mellitus (4) Anaemia

22. The _____ in diet increases LDL cholesterol levels.
    (1) Unsaturated fatty acids (2) Carbohydrates
    (3) Saturated fatty acid (4) Animal proteins

23. Hydrogenation of vegetable oil converts _____.
    (1) Unsaturated fatty acid to trans saturated fatty acids
    (2) Saturated fatty acids to poly unsaturated fatty acids
    (3) Unsaturated fatty acids to LDL cholesterol
    (4) Saturated fatty acids to HDL cholesterol

24. Lack of physical activity causes the following except :
    (1) Increase in insulin sensitivity (2) Increase in blood lipids
    (3) Rise in blood pressure (4) Increase in body weight

25. The following personality behaviour increases the incidence of CAD :
    (1) Type A (2) Type B (3) Type C (4) Type D

26. The following behaviours increase the incidence of CAD.
    (1) Relaxed (2) Competitive (3) Hostility (4) Exuberant

27. The _____ cholesterol is considered as good cholesterol.
    (1) LDL (2) HDL (3) VLDL (4) Triglycerides

28. The normal range for HDL cholesterol in women is _____.
    (1) 10 - 20 mg/dl (2) 60 - 80 mg/dl (3) 30 - 40 mg/dl (4) 100 - 110 mg/dl

29. The normal acceptable range of LDL cholesterol in adult healthy male without any risk factors is _____.
    (1) 130 - 150 mg/dl (2) 200 - 220 mg/dl
    (3) 50 - 70 mg/dl (4) 170 - 180 mg/dl

30. The total cholesterol/HDL cholesterol ratio more than _____ is associated with high risk of CAD.

   (1) 2.5   (2) 1.5   (3) 3.0   (4) 4.5

31. The prevalence of CAD among adult diabetic patients is _____.

   (1) 10%   (2) 25%   (3) 80%   (4) 55%

32. The _____ study is one of the largest case controlled studies to evaluate risk factors for CAD, globally, as well as in each region and among the different ethnic groups.

   (1) AIRE   (2) FRAMINGHAM

   (3) TECUMSEH   (4) INTERHEART

33. _____ prevention is concerned with controlling, reversing and treating the risk factors in the individual or in the community before any damage to the organ/system happens.

   (1) Primary   (2) Secondary   (3) Tertiary   (4) Quaternary

34. _____ study was the first study to show the effectiveness of change in life style in prevention of Atherosclerosis in a population.

   (1) INTER HEART   (2) FRAMINGHAM

   (3) SEVEN COUNTRIES   (4) NURSES HEALTH

35. In Nurses Health study following changes except _____ showed the impact on primary prevention.

   (1) Moderate to vigorous exercise   (2) Low BMI

   (3) Smoking cessation   (4) Statins

36. The following drugs have been shown to be useful in primary prevention except :

   (1) Aspirin   (2) ACE Inhibitor

   (3) Statins   (4) Calcium Channel Blocker

37. The Hydroxymethyl glutaryl - COA reductase inhibitor is _____.

   (1) Aspirin   (2) Clopidogrel   (3) Statins   (4) Nifedepine

38. According to WHO recommendation on diet, fat intake should be less than_____ of total calories.

(1) 10%   (2) 30%   (3) 25%   (4) 15%

39. The salient points of WHO recommendations for diet in prevention of atherosclerosis are the following except :

(1) Saturated fat less than 10%   (2) Plenty of fibers, fruits and vegetables

(3) High intake of proteins   (4) Less of salt and Sugar

40. Non pharmacological management of hypertension include the following except :

(1) Reduction of overweight   (2) High carbohydrate diet

(3) Reduction in salt intake   (4) Stress management

41. O Sullivan criteria is used for :

(1) Diagnosis of hypertension   (2) Diagnosis of gastational diabetes

(3) Diagnosis of keto acidosis   (4) Diagnosis of heart failure

42. Anti hypertensive of choice in diabetes is :

(1) β blocker   (2) Diuretic   (3) ARBsACEI   (4) ALFA blocker

43. Which test is not useful in keto acidosis ?

(1) ABG   (2) urine test   (3) osmolality test   (4) Blood sugar

44. Hypoglycemia is defined as :

(1) Blood sugar less than 40mg percent

(2) Blood sugar less than 60mg percent

(3) Blood sugar less than 80mg percent

(4) Blood sugar less than 100mg percent

45. Which is not a feature of keto acidosis ?

(1) Increased free fatty acid   (2) Decreased gluconeogenesis

(3) Osmotic diuresis   (4) Cellular dehydration

46. Average fluid deficit in keto acidosis is :

(1) Six litres   (2) Four litres   (3) Two litres   (4) Ten litres

47. Maximum mortality in diabetes patient is due to :

(1) Hypoglycemia   (2) cardio vascular disease

(3) keto acidosis   (4) CVA

48. Least likely cranial nerve involvement in diabetes with double vission is :

(1) 6th (2) 3rd

(3) 4th (4) combined 3rd and 4th nerver

49. Drug useful for erectile dysfunction is :

(1) Nitrate   (2) Phosphodiesterase inhibitor

(3) ACE inhibitor   (4) Alfa blocker

50. Sweeting agent which contain calorie is :

(1) Sorbitol   (2) Xylitol   (3) Fructose   (4) Aspartame

51. Which is 3rd generation anti diabetic ?

(1) Glimepiride   (2) Gliclazide   (3) Glipizide   (4) Tolbutamide

52. Drug causes lactic acidosis is :

(1) Insulin sensitizers   (2) Phen formin

(3) Sulphonylureas   (4) Alpha Glucosidase inhibitors

53. Which is insulin analogues ?

(1) Regular insulin   (2) Biphasic insulin

(3) Lente insulin   (4) g - largin insulin

54. Calorie requirement in diabetes is :

(1) 50kcal/kg   (2) 25kcal/kg   (3) 35kcal/kg   (4) 60kcal/kg

55. Blood volume starts to rise in pregnancy at :
   (1) 12thweek   (2) 4th week   (3) 6th week   (4) 20th week

56. Heart rate peaks during :
   (1) 1st trimester   (2) 2nd trimester   (3) 3rd trimester   (4) After delivery

57. Which is true in pregnancy ?
   (1) Pulse pressure narrow   (2) Systemic vascular resistance increases
   (3) pulse pressure widen   (4) Blood pressure rises

58. The Ideal Goal of Blood pressure, appropriate for primary and secondary prevention of :
   (1) less than 140/90 mm Hg   (2) less than 130/85 mm Hg
   (3) less than 120/80 mm Hg   (4) less than 110/60 mm Hg

59. X-ray radiation during pregnancy can lead to all except :
   (1) Childhood cancer   (2) Teratogenic effect
   (3) Growth retardation   (4) Fetal heart failure

60. Plasma 1/2 life of Esmolol is :
   (1) 25 min   (2) 9 min   (3) 5 min   (4) 2 min

61. Sotalol is :
   (1) Selective β blocker   (2) Non selective β blocker
   (3) Class II antiarrhythmic drug   (4) Similar to procainamide

62. Which is not true for digitalis ?
   (1) Not crosses placenta
   (2) Consider as routine drug of choice in treating fetal arrhythmia
   (3) WPW syndrome worsen with digitalis
   (4) Excreted in milk

63. Procainamide is belongs to which class :
   (1) Class I A Anti arrhythmic drug   (2) Class I B Anti arrhythmic drug
   (3) Class I C Anti arrhythmic drug   (4) Class III Anti arrhythmic drug

64. Thiazide act on which part of nephron ?

(1) PCT   (2) DCT   (3) Loop of Henle   (4) Collecting duct

65. Which is not a potassium sparing drug ?

(1) Triamterene   (2) Amiloride   (3) Eplirenon   (4) Bumetamide

66. INR test is for monitoring of :

(1) Heparin   (2) Oral Antiplatelet

(3) Low molecular Heparin   (4) Warfarin

67. Which is not true for warfarin ?

(1) Not safe in 1st trimester of pregnancy

(2) Can cause skin necrosis

(3) Dose monitoring done with APTT

(4) Amiodarone potentiate warfarin level

68. Phospho-diasterase inhibitor cause all except :

(1) Vasodilatation

(2) Increased ionotropy

(3) Inhibition of platelet aggregation

(4) Decreased cytosolic calcium

69. Risk factor for pre- eclampsia is all except :

(1) No family history   (2) Hypertension in previous pregnancy

(3) Renal disease   (4) Nulliparous women

70. Which is not true for dobutamin ?

(1) A weak beta agonist

(2) Moderately lower pulmonary artery pressure

(3) May produce desensitizing phenomena

(4) Significantly increase heart rate.

71. Which of the following is not a cause of acute heart failure ?

    (1) Rupture chordee   (2) RSOV

    (3) Myocardial infarction   (4) Pregnancy

72. Nocturid is :

    (1) Common in early heart failure   (2) Common in late heart failure

    (3) Not a symptom of heart failure   (4) Do not affect sleep

73. BND level specific for heart failure is :

    (1) > 50 pg/ml   (2) > 1000 pg/ml   (3) > 100 pg/ml   (4) > 100 mg/ml

74. Which is not a cause of high output failure ?

    (1) Polycythemia vera   (2) Anaemia

    (3) Pregnancy   (4) Hypothyrodism

75. All are causes of dominant diastolic heart failure except :

    (1) Hypertension   (2) Severe aortic stenosis

    (3) HOCM   (4) Myocardial infarction

76. Nasirides are :

    (1) Nitrate

    (2) Belong to human. β. type natriuretric peptide

    (3) An Inotroper

    (4) Is a oral drug

77. Which is useful in heart failure ?

    (1) Hydralazine   (2) Endothelin

    (3) Manitol   (4) Prostaglandin inhibitor

78. Which is well tolerated in pregnancy ?

    (1) Aortic stenosis   (2) HOCM

    (3) Mitral regurgitation (4) Primary PPH

79. Most patient with aortic stenosis tolerate pregnancy when valve area is :

   (1) $>1.0cm^2$ (2) $> 1.5cm^2$ (3) $< 1.0cm^2$ (4) $< 1.5cm^2$

80. Which is not true for marfan syndrome ?

   (1) Pregnancy is safe   (2) Dissection of aorta is common

   (3) High risk for child inheritance   (4) Dilatation of ascending aorta.

81. Which is not a complication of marfan syndrome ?

   (1) Abnormal placental site   (2) Post partum haemorrhage

   (3) Cervical incompetence   (4) Coronary embolism

82. Which is true in coarctation of aorta ?

   (1) β blocker not useful

   (2) Cannot be treated non surgically

   (3) Rupture of cerebral anevrysm can occur

   (4) Bicuspid aortic valve is rare association

83. True statement for Heparin is :

   (1) Crosses placenta

   (2) Not safe in pregnancy

   (3) Risk of fracture is not a complication

   (4) Sterile abscess can occur.

84. Peripartun cardiomyopathy is :

   (1) Form of restrictive cardiomyopathy

   (2) Common in nulliparous.

   (3) Common in less than 30 years

   (4) Low selenium level implicated

85. Eisenmenger syndrome is a term coined by :

   (1) Paul Stephen   (2) Paul Wood   (3) Paul Kristina   (4) Paul Eisen

86. Eisenmenger syndrome is earliest in :

(1) ASD   (2) VSD   (3) PDA   (4) A-P window

87. DVT is common with all except :

(1) Malignancy   (2) Major general surgery

(3) Major orthopedic surgery   (4) Anaemia

88. Pulmonary embolism is common with thrombosis in :

(1) Superficial vein of leg   (2) Axillary vein

(3) Subclavian vein   (4) pelvic vein

89. In pulmonary embolism which is true ?

(1) Echocardiography is sensitive to detect thrombi in pulmonary circulation

(2) Pulse oxymetry is sensitive to diagnose PE

(3) Ventilation is abnormal

(4) CT scan reduces utility of ventilation perfusion scan

90. Choice of drugs in obes diabetes :

(1) Pioglitazone   (2) Insulin   (3) Metformin   (4) Gliten calamide

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