

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

Term-End Examination

00833

December, 2013

MCC-006 : PREVENTIVE CARDIOLOGY

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.*

9. Amount of Alcohol which is Cardio protective :
- (1) 30 ml (2) 20 ml (3) 50 ml (4) 60 ml
10. Safe Lipid Lowering drug in Children is :
- (1) Resin (2) Statin (3) Fibrates (4) Niacin
11. Each 5 mmHg increase in diastolic BP, associated with _____ increase in stroke.
- (1) 56% (2) 21% (3) 47% (4) 34%
12. JNC VI, Optimal BP is :
- (1) 130/80 (2) 120/80 (3) 140/90 (4) 150/100
13. False regarding Fish oil is :
- (1) Antithrombic effects
(2) Anti Inflammatory
(3) Contraindicated in hyper triglyceridemia
(4) Decrease VLDL synthesis
14. In post Menopausal Women, exogenous estrogen results in all except :
- (1) ↑ HDL (2) ↑ LDL
(3) ↑ Apolipoprotein - a (4) ↓ Apolipoprotein B 100
15. All the following are components of Metabolic Syndrome X except :
- (1) Hypertriglyceridemia (2) High HDL Levels
(3) Hyper insulinemia (4) Hypertension
16. The Most Common Cause of death in women is :
- (1) CAD (2) CVA (3) Cancer (4) COPD

17. Percentage of patients with CAD having SCD :
- (1) 10 - 20% (2) 5 - 10% (3) 20 - 25% (4) 25 - 50%
18. Cardio Protective agent present in Red wine is :
- (1) Resveratrol (2) Methyl Alcohol (3) Ethyl Alcohol (4) None
19. Origin of Lipoprotein is from :
- (1) Intestine (2) Liver (3) Tissue (4) All
20. The drug used in Helsinki Heart Study is :
- (1) Gemfibrozil (2) Pravastatin
(3) Lovastatin (4) Simvastatin
21. CAD in women, equalling that in men by age :
- (1) 55 years (2) 65 years (3) 75 years (4) 85 years
22. Most of the dietary fat consists of :
- (1) Cholesterol (2) Triglycerides (3) Chylomicrons (4) Trone
23. Average Reduction of BP \bar{C} 1 kg reduction in body weight :
- (1) 1.3/1.0 mmHg (2) 1.6/1.3 mmHg
(3) 10/5 mmHg (4) 20/10 mmHg
24. Mechanism of action of statin is :
- (1) Decrease Hepatic production of VLDL, LDL
(2) Interaction with PPAR α
(3) Decreased hepatic secretion of VLDL from Liver
(4) Interrupt the enterohepatic circulation of bile

25. Syndrome X is (angina with normal angiogram) is due to :
- (1) Athero sclerosis
 - (2) Coronry Spasm
 - (3) Microvascular dysfunction
 - (4) Coronary emboli
26. The incidence of primary Cardiac arrest lowered by OMEGA-3 fatty acids due to :
- (1) Prevents Atherosclerosis
 - (2) Reductron in risk for abnormal cardiac electrical conductivity
 - (3) Decreases inflammsatory markers
 - (4) All
27. Patient with CAD, LDL goal is :
- (1) < 70 mg/dl
 - (2) < 100 mg/dl
 - (3) < 130 mg/dl
 - (4) < 160 mg/dl
28. Common Causes of death in young athletes (age < 35 years) is :
- (1) Coronary anomolies
 - (2) HCM
 - (3) ↑ Cardiac mass
 - (4) Tunnelled LAD
29. Cigarette smoking has all the following effects on CAD except :
- (1) Pre disposes to atheroscleratic plaque erosion
 - (2) Acute thrombosis
 - (3) Does not aggravate other risk factors
 - (4) Cessation of smoking has been shown to decrease both morbidity and mortality
30. Lipid lowering drug that has Antioxidant properties :
- (1) Niacin
 - (2) Resin
 - (3) Probucol
 - (4) Statin

31. Step II diet % of calories from saturated fats :
- (1) 30% (2) 10% (3) < 7% (4) 55%
32. Following drug will cause dyslipidemia :
- (1) Thiazide diuretic (2) retinoic acid
(3) CCB (4) Beta Blockers
33. Primary Prevention goal LDL, TG, HDL Levels :
- (1) LDL 130 mg/dl, HDL 31 - 40 mg/dl, TG 151 - 250 mg/dl
(2) LDL < 130 mg/dl, HDL > 40 mg/dl, TG < 150 mg/dl
(3) LDL 161 - 190 mg/dl, HDL 25 < 30 mg/dl, TG 251- 400 mg/dl
(4) LDL > 190 mg/dl, HDL < 25 mg/dl, TG > 400 mg/dl
34. Palmar Striated Xanthomas are Pathognomonic of :
- (1) Familial Hyper Chylomicronemia
(2) Type V Hyperlipidemia
(3) Type III Hyper lipoproteinemia
(4) Familial Hyper triglyceridemia
35. Highest prevalence of HTN in world is :
- (1) Indians (2) Hispamic Americans
(3) African Americans (4) Whites
36. Drug that decrease FFA Mobilization from prephery is :
- (1) Resin (2) Statin (3) Fibrates (4) Niacin
37. Antihypertensive recommeded in Benign Prostatic Hyperplasia :
- (1) ACE Inhibitor (2) Diuretic (3) α blockers (4) β blockers

38. Drug not Indicated for Hypertriglyceridemia :
- (1) Resin (2) Statin (3) Fibrates (4) Niacin
39. All the following are beneficial effects of ACE - I in CAD except :
- (1) Reduction on LVH
(2) Reduction in Vascular Hypertrophy
(3) Reduction in plaque rupture
(4) No effect on coronary endothelial vasomotor functions
40. No increase in LDL - C following intake of :
- (1) Myristic acid (2) Lauric acid (3) Oleic acid (4) Palmitic acid
41. Following drug will cause dyslipidemia :
- (1) Thiazide diuretic (2) Retinoic acid
(3) CCB (4) Beta blockers
42. Lipoprotein X formation is seen in :
- (1) Liver disease (2) Renal disease (3) Drug induced (4) Diabetes
43. Malignant Hypertension is defined as Diastolic BP.
- (1) > 90 mm Hg (2) > 100 mm Hg
(3) > 120 mm Hg (4) > 115 mm Hg
44. Aspirin in Secondary Prevention reduces CVD events by :
- (1) 25% (2) 18% (3) 22% (4) 27%
45. According to JNC VI, stage I HTN is :
- (1) 130 - 139/85 - 89 (2) < 130/< 85
(3) 140 - 159/90 - 99 (4) 160 - 179/100-109

6. Smokes who quit, reduces excess risk of coronary event within 1st year is :
- (1) 10% (2) 20% (3) 40% (4) 50%
7. Walnuts are rich in :
- (1) Linoleic acid (2) Linolenic acid
(3) Eicosa Pentanoic acid (4) Decosa hexanoic acid
8. One of the following is **not** a benefit of Low Carbohydrate diet ?
- (1) Rapid rate of initial wt. loss (2) HDL Increase
(3) Decreased Triglyceride Levels (4) Decreased LDL Levels
9. As per Global Burden of Disease study reported in 2000, commonest cause of death in developed countries was :
- (1) Ischaemic Heart-Disease (2) Cerebrovascular Disease
(3) Respiratory Cancers (4) Lower Respiratory Infections
10. As per Global Burden of Disease study reported is 2000, commonest cause of death in developing countries was :
- (1) Ischemic Heart - Disease (2) Cerebrovascular Disease
(3) Lower Respiratory Infections (4) HIV/ AIDS
11. As per study of Health Assessment and Risk in ethnic groups (SHME) from Canada, highest prevalence of coronary artery disease was in the following group :
- (1) South Asian Indians (2) Europeans
(3) Chinese (4) Japanese
12. As per 2000 statistics, the commonest cause of Disability Adjusted Life Years (DALYs) in India is because of :
- (1) Perinatal Condition (2) Lower Respiratory Track Infections
(3) Diarrhoeal Disease (4) Ischaemic Heart Disease

53. Following statements about natural history of coronary Artery Disease are true except :

- (1) Bogalusa Heart study showed a positive correlation between childhood risk factors and coronary artery lesion
- (2) As per Pathological Determinants of Atherosclerosis in youth (PDAY) Research Group; young Americans who have risk factors for clinical coronary artery disease in particular high LDL cholesterol level and obesity have a high prevalence of advanced atherosclerotic plaque
- (3) Numerous studies have shown that Atherosclerotic process starts very early in life, even as early as three years of age
- (4) Post mortem analysis of heart of young US casualties (mean age 22 years) in the Korean Conflict showed the incidence of coronary Atherosclerotic lesion to be 17 percent

54. Following statements about Atherosclerosis are true except :

- (1) Atherosclerosis can involve both large and mid size arteries
- (2) Atherosclerosis produces focal stenosis in certain areas of affected vessels much more than in others
- (3) Atherosclerosis has long incubation period. Typically symptoms occur after several decades of delay
- (4) Ectasia of the vessel, rules out atherosclerosis as its cause

55. Following are modifiable risk factors for Coronary Artery Disease except :

- | | |
|----------|-------------------------|
| (1) Diet | (2) Smoking |
| (3) Age | (4) Physical Inactivity |

56. In men aged 30 - 39 years; according to age, ninety eight percent have 10 years risk of coronary artery disease :

- | | |
|---------------------|---------------------|
| (1) Less than 10% | (2) 10 - 19 percent |
| (3) 20 - 29 percent | (4) 30 - 49 percent |

57. Other things being equal, the ratio of women dying during or shortly after coronary by pass surgery as compared to men is :
- (1) Half (2) Twice (3) Three times (4) Four Times
58. Following statements are **true** except :
- (1) Saturated fatty acids increase LDL cholestrol
(2) Monosaturated fatty acids lower LDL cholestrol
(3) Polyunsaturated fatty acids lower LDL cholestool and increase HDL cholestrol
(4) Even in the absence of overt diabetis, a raised blood sugar may cause endothelial damage
59. Following are the reasons which make atherosclerosis ideal for prevention except
- (1) Common disease with high incidence
(2) Long disease latency
(3) Long Time between symptoms and disability
(4) Sudden death is a common presentation
60. As per 'INTER HEART' Study, nine risk factors, dyslipidemia, smoking, diabetes mellitus, hypertension, abdominal obesity, psychosocial stress, poor diet, physical inactivity and reduced alcohol consumption are responsible for following percentage of risk for a first myocardial infarction :
- (1) 10 - 20 percent (2) 30 - 40 percent
(3) 50 - 60 percent (4) > 90 percent
61. Efforts to prevent the development of coronary heart disease risk factors in a population is called :
- (1) Primordial Prevention (2) Primary Prevention
(3) Secondary Prevention (4) Primary and a half Prevention

62. "Heart disease before eighty is our fault, not God's or Nature's will" who wrote the above ?

- (1) Dr. Paul Dudley white (2) Dr. E Braunwald
(3) Dr. JW Hurst (4) Dr. Geoffrey Rose

63. Framingham Heart study was started by National Heart Institute (now National Heart, Lung and Blood Institute (NHLBI) in the year :

- (1) 1948 (2) 1958 (3) 1968 (4) 1978

64. Within six years after a heart attack, following statements are **true** except :

- (1) 34 percent of men and 18 percent of women will have another heart attack
(2) 7 percent of men and 6 percent of women will experience sudden death
(3) 22 percent of men and 46 percent of women will be disabled by heart failure
(4) 8 percent of men and 11 percent fo women will have a stroke

65. Geoffrey Rose suggested following preventive strategy to reduce the disease burden in the community :

- (1) Population Health Stratgey
(2) Individual Strategy
(3) Single Raised Risk Factor Strategy
(4) High Baseline Risk Strategy

66. Chemoprevention as a strategy is used in following type of prevention :

- (1) Primordial (2) Primary
(3) Secondary (4) Both Primary and Secondary

67. In 'Seven Countries Study the pioneering work was done by following physician :

- (1) Dr. Ancel Keys (2) Dr. Pekka Puska
(3) Dr. Geoffrey Rose (4) Dr. D Gorhoro

68. About three decades ago in which country 'anything green' was dismissed as "food for animals" :
- (1) India (2) Finland (3) USA (4) Australia
69. 'Nurses Health Study' was started in the following year :
- (1) 1966 (2) 1976 (3) 1986 (4) 1996
70. The 'Healthy Aging Longitudinal Study' (HALE) in Europe showed following percentage of reduction for coronary Artery Disease with healthy diets and life style :
- (1) 53 percent (2) 63 percent (3) 73 percent (4) 83 percent
71. Effect of diet - Evaluations from the seven countries study showed a sixfold lower mortality rate in crete and Japan as compared to :
- (1) Eastern Finland (2) Eastern Mexico
(3) Eastern Germany (4) USA
72. As a general statement, a 30 percent reduction in LDL cholesterol results in about following percentage of reduction of event rates :
- (1) 10 percent (2) 20 percent (3) 30 percent (4) 40 percent
73. Following studies showed the benefit of lipid Lowering Drug in secondary Prevention except :
- (1) Scandinavian Simvastatin Survival study
(2) Cholesterol and Recurrent Events study
(3) Lipid Long term Intervention with Pravastatin in Ischaemic disease study
(4) West of scotland coronary prevention study

74. The Heart Outcomes Prevention Evaluation Study used one of the following drug in their study :

- (1) Simvastatin (2) Pravastatin
(3) Atrovastatin (4) Ramipril

75. Following statements are **true** except :

- (1) A ripe fruit has a higher glycaemic index that which is still green.
(2) Sugar infiber rich foods tends to be absorbed into the blood stream more slowly.
(3) The higher a food's fat content, the faster its corbohydrates are converted into sugar and absorbed into the blood stream.
(4) Finely ground flour has a higher glycaemic index than coarse ground flour.

76. Following oils contain more polyunsaturated fats then monosaturated fats except :

- (1) Sunflower (2) Corn (3) Soyabean (4) Peanut

77. As per united states, Department of Agriculture following oils contain the least amount of saturated fat :

- (1) Sunflower (2) Rice bran (3) Olive (4) Canola

78. In the 'Nurses Health Study, replacing 80 calories of carbohydrates with 80 calories of either polyunsaturated or monosaturated fats lowered the rish for heart-disease by about :

- (1) 10 - 20 percent (2) 20 - 30 percent
(3) 30 - 40 percent (4) 40 - 50 percent

79. Following statements are **true** except :

- (1) Proteins provide the essential aminoacids
(2) Proteins from animal source are taken as 'complete' protein
(3) Proteins from plant source are taken as 'incomplete' protein
(4) Animal source proteins are good for heart

80. WHO in making the dietary recommendations for prevention of heart disease has recommended the following except :
- (1) Saturated fat should be less than 10 percent
 - (2) Cholesterol less than 500 gm
 - (3) Carbohydrates to provide 50 - 70 percent of calories
 - (4) Total dietary fibre - 27 - 40 gms/day
81. Following statements are **true** about smoking cessation except :
- (1) Men and women who stop smoking, risk of coronary artery disease is reduced by 25 percent after one year.
 - (2) Ten years after quitting, male exsmokers have same mortality as nonsmokers.
 - (3) Lung Cancer mortality is reduced by 60 percent after 5 years of quitting.
 - (4) In ASPIRE (Action on Secondary Prevention through Intervention to Reduce Events) trial; one in five patients had resumed smoking cigarettes at follow up.
82. Following statements about Alcohol are **true** except :
- (1) Observational studies demonstrate that heavy alcohol intake increases total mortality and cardiovascular disease mortality
 - (2) There is inverse relationship between light to moderate drinking and risk of heart attack
 - (3) Beneficial effects of alcohol for persons, who drink one or two ounces per day is because of increase in HDL
 - (4) Beneficial effects of alcohol for persons, who drink one or two ounces per day is because of increase in platelet activity
83. Following are the beneficial effects of exercise except :
- (1) Increases HDL
 - (2) Reduces LDL
 - (3) Decreases insulin sensitivity
 - (4) Reduces Blood Pressure

84. Following statements about Blood Pressure are true except :
- (1) There is linear risk relation between blood pressure and the risk of vascular mortality down to a pressure of at least 115/75 mm Hg throughout middle and old age
 - (2) For individuals 40 to 70 years of age, each increment of 20 mm in Systolic Blood Pressure or 10 mm in Diastolic Blood Pressure doubles the risk of cardiovascular disease across a blood pressure range of 115/75 mm Hg to 185/115 mmHg
 - (3) The Antihypertensive and lipid lowering treatment to prevent heart attack trial demonstrated the efficacy of thiazide diuretics compared with other antihypertensive agents
 - (4) Hypertension in Very Elderly Trial found that treatment of hypertension with a diuretic and ACE - inhibitors increased risk of heart failure and stroke and also the risk of death from other causes.
85. For treatment of hypertension, following drugs are specifically recommended for following special situations :
- (1) Diabetes with hypertension - Diuretics
 - (2) LV failure with hypertension -ACE inhibitors or ARB
 - (3) Coronary Artery Disease With Hypertension - Betablocker
 - (4) Peripheral Artery Disease With Hypertension - Calcium Channel Blocker
86. In one of the following study ; aiming to reduce lipid levels, there was increase in noncardiac mortality :
- (1) West of Scotland Coronary Prevention Study
 - (2) Helsinki Heart Study
 - (3) Air Force Coronary Atherosclerosis Prevention Study
 - (4) Texas Coronary Atherosclerosis Prevention Study
87. As per National cholesterol education program - Adult Treatment Panel Guidelines - III, coronary artery disease equivalents include following except :
- (1) Diabetes
 - (2) Peripheral Artery Disease
 - (3) Transient Ischaemic Attack
 - (4) Ankle Brachial Index > 0.9

88. As per National Cholesterol Education Program - Adult Treatment Panel III guidelines, target level of LDL cholesterol in low risk category should be :

- (1) ≤ 190 mgm/dl
- (2) ≤ 160 mgm/dl
- (3) ≤ 130 mgm/dl
- (4) ≤ 100 mgm/dl

89. As per European Society of Cardiology and the European Atherosclerotic society guidelines for persons with total CV risk score level > 1 to $< 5\%$, target - level of LDL-C should be :

- (1) < 95 mgm/dl
- (2) < 115 mgm/dl
- (3) < 135 mgm/dl
- (4) < 155 mgm/dl

90. Following statement are **true** except :

- (1) Patients with both type I and II diabetes mellitus have increased risk of coronary artery disease
 - (2) In type II, diabetes , hypertension usually reflect the presence of diabetic nephropathy
 - (3) The threshold for BP intervention in patients with diabetes is lower than in uncomplicated hypertension
 - (4) Blood sugar level may rise acutely during acute myocardial infarction or ischaemic
-