

01054

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

Term-End Examination

June, 2015

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) *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. CVD accounts for the following percentage of death among under-70 population in developing countries :
 - (1) > 50%
 - (2) > 60%
 - (3) > 70%
 - (4) None of the above

2. Mortality due to CVD among Indian men will rise from 1985 to 2015 by
 - (1) 83%
 - (2) 93%
 - (3) 103%
 - (4) 113%

3. In 2001, number of people dying of CVD of all types in the world is
 - (1) 10 million
 - (2) 17 million
 - (3) 24 million
 - (4) None of the above

4. First four leading causes of death in developing countries in GBD 2000 study include all of the following *except*
 - (1) IHD
 - (2) Cerebrovascular disease
 - (3) Respiratory cancers
 - (4) HIV/AIDS

5. First report to highlight high prevalence of CAD among Indians came from
 - (1) South Africa
 - (2) Fiji
 - (3) Singapore
 - (4) Uganda

6. In Framingham Offspring Study Q-wave MI is commoner in Indian men by
- (1) 2 times
 - (2) 3 times
 - (3) 4 times
 - (4) 5 times
7. As compared to Caucasians, Asian Indians have a higher incidence of all of the following *except*
- (1) TVD
 - (2) High atheroma score
 - (3) Larger infarct size
 - (4) None of the above
8. Angiographically, as compared to Caucasians, Asian Indians have
- (1) More collateral vessels
 - (2) Smaller coronary arteries
 - (3) Both of the above
 - (4) None of the above
9. As compared to Whites, TVD is commoner among Asian Indians by
- (1) 2 times
 - (2) 3 times
 - (3) 4 times
 - (4) None of the above
10. Premature CAD in women is defined as CAD occurring in women before
- (1) 55 years
 - (2) 65 years
 - (3) 75 years
 - (4) None of the above

11. As compared to Europeans first MI is commoner among Indian men by
- (1) 2 times
 - (2) 3 times
 - (3) 4 times
 - (4) 5 times
12. Young CAD means CAD before the age of
- (1) 30
 - (2) 40
 - (3) 50
 - (4) None of the above
13. Most marked CAD mortality difference between Caucasians and South Asians is seen in the age-group
- (1) 15 – 20
 - (2) 20 – 29
 - (3) 30 – 39
 - (4) > 40
14. Standardised Mortality Rate (SMR) is highest among the following ethnic group in Singapore :
- (1) Chinese
 - (2) Malay
 - (3) South Asians
 - (4) None of the above
15. Immigrant Indians have all of the following *except*
- (1) 3 times higher prevalence of CAD
 - (2) Multiple coronary artery involvement
 - (3) CAD mortality pronounced among the young
 - (4) None of the above

- 16.** As compared to US, prevalence of CAD among urban population in India is higher by
- (1) 2 times
 - (2) 3 times
 - (3) 4 times
 - (4) None of the above
- 17.** Among Delhi population, community with lowest prevalence of CAD is
- (1) Bengalis
 - (2) Marathis
 - (3) Punjabis
 - (4) Gujaratis
- 18.** Rural-urban difference in CAD prevalence is accounted by differing prevalence of
- (1) Risk factors
 - (2) Social factors
 - (3) Both of the above
 - (4) None of the above
- 19.** As compared to immigrant Indians prevalence of CAD among native Indians is
- (1) High
 - (2) Same
 - (3) Less
 - (4) Same in some cases
- 20.** In India prevalence of CAD is higher in the following part of the country :
- (1) South
 - (2) North
 - (3) North-East
 - (4) West

- 21.** Coronary artery lesions in Indians have the following characteristics *except*
- (1) Premature
 - (2) Severe
 - (3) Extensive
 - (4) None of the above
- 22.** Clinical CAD events in Indians is
- (1) Double that of Whites
 - (2) 4-times higher than Chinese
 - (3) Both of the above
 - (4) None of the above
- 23.** Burden of CAD in India is
- (1) 1.0 percent of GDP
 - (2) 0.9 percent of GDP
 - (3) 0.8 percent of GDP
 - (4) 0.7 percent of GDP
- 24.** In Indians, acute coronary events occur
- (1) At least 10 years earlier than Caucasians
 - (2) At least 5 years earlier than Chinese
 - (3) At least 10 years earlier than Latin Americans
 - (4) All of the above
- 25.** Major causes of DALY in India include all of the following *except*
- (1) Perinatal conditions
 - (2) Ischemic heart disease
 - (3) Maternal conditions
 - (4) Lower respiratory infections

- 26.** Cardiovascular diseases that impose major burden on India include all of the following *except*
- (1) CAD
 - (2) Hypertension
 - (3) Rheumatic heart disease
 - (4) None of the above
- 27.** In India, the most important risk factor contributing to CAD is
- (1) Diabetes
 - (2) Smoking
 - (3) Hypertension
 - (4) Hyperlipidemia
- 28.** In India, prevalence of RHD among primary school children 6 – 10 years age is
- (1) 3·9/1000
 - (2) 4·9/1000
 - (3) 2·9/1000
 - (4) 5·9/1000
- 29.** PDAY study proved presence of advanced atherosclerotic plaques in
- (1) Young Indians
 - (2) Elderly Indians
 - (3) Young Americans
 - (4) Elderly Americans
- 30.** Complicated atherosclerotic plaques are seen in
- (1) Second decade
 - (2) Third decade
 - (3) Fourth decade
 - (4) Fifth decade

- 31.** Atheroma formation is related to all *except*
- (1) Injury to endothelium
 - (2) Change in blood lipids
 - (3) Both of the above
 - (4) None of the above
- 32.** Progress of atherosclerosis depends on
- (1) Heredity
 - (2) Environmental factors
 - (3) None of the above
 - (4) Both of the above
- 33.** Risk factors directly responsible for promoting atherosclerosis are
- (1) Conditional risk factors
 - (2) Causal risk factors
 - (3) Predisposing risk factors
 - (4) None of the above
- 34.** All of the following are non-modifiable factors *except*
- (1) Age
 - (2) Gender
 - (3) Metabolic syndrome
 - (4) Heredity
- 35.** Family history of early CAD is present when the onset in affected male is
- (1) < 65 years
 - (2) < 55 years
 - (3) < 45 years
 - (4) None of the above

- 36.** The percentage of males aged 70 – 79 years having 10-year CAD risk more than 20% is almost
- (1) 50%
 - (2) 60%
 - (3) 70%
 - (4) None of the above
- 37.** All of the following are true about atherosclerosis in females *except*
- (1) Protected by sex hormones
 - (2) Protection diminishes after menopause
 - (3) Women in 6th and 7th decade have almost same incidence of CAD as males
 - (4) None of the above
- 38.** Incidence of CAD death in women < 50 years as compared to men of same age is
- (1) < 50%
 - (2) > 50 %
 - (3) < 40%
 - (4) > 40%
- 39.** After CABG, mortality risk in women as compared to men is
- (1) 2-times lower
 - (2) 3-times higher
 - (3) 3-times lower
 - (4) 2-times higher
- 40.** Family history of CAD is significant in the following situations *except*
- (1) Early age
 - (2) First degree relatives
 - (3) Siblings
 - (4) None of the above

- 41.** As compared to parental premature CVD, sibling CVD confers
- (1) More risk
 - (2) Similar risk
 - (3) Lesser risk
 - (4) Equal risk
- 42.** Children born to families with a high prevalence of standard risk factors will be
- (1) At risk for development of CAD
 - (2) No risk for development of CAD
 - (3) Variable risk for development of CAD
 - (4) None of the above
- 43.** Saturated fatty acids increase the level of
- (1) VLDL
 - (2) IDL
 - (3) HDL
 - (4) LDL
- 44.** Polyunsaturated fatty acid reduces
- (1) LDL
 - (2) HDL
 - (3) Both of the above
 - (4) None of the above
- 45.** Animal protein increases the plasma level of
- (1) Lp(a)
 - (2) Homocystiene
 - (3) Fibrinogen
 - (4) None of the above

- 46.** Following are true about Nicotine *except*
- (1) Potent agonist of para-sympathetic system
 - (2) Increases coronary tone
 - (3) Provokes vasoconstriction
 - (4) None of the above
- 47.** Moderate alcohol intake has beneficial action by virtue of its action on
- (1) HDL
 - (2) Platelets
 - (3) Fibrinolysis
 - (4) All of the above
- 48.** Physical inactivity causes
- (1) Increase in body weight
 - (2) Decrease in cardiac reserve
 - (3) Decrease in insulin sensitivity
 - (4) All of the above
- 49.** Effect of stress is mediated through
- (1) Parasympathetic nervous system
 - (2) Aldosterone
 - (3) Bradykinin
 - (4) None of the above
- 50.** Hypertension aggravates ischemia by
- (1) Promoting atheroma
 - (2) Increasing oxygen demand
 - (3) Both of the above
 - (4) None of the above

- 51.** At a given level of LDL cholesterol, the atherogenic potential is increased by
- (1) Low VLDL
 - (2) High TG
 - (3) Low HDL
 - (4) High IDL
- 52.** In presence of diabetes
- (1) Likelihood to develop CAD increases 3 – 5 times
 - (2) Overall mortality from heart disease in women increases 4 – 5 times
 - (3) Prevalence of CAD may be as high as 55%
 - (4) All of the above
- 53.** Obesity is related to all of the following *except*
- (1) Hyperlipidemia
 - (2) Hypertension
 - (3) Insulin resistance
 - (4) None of the above
- 54.** Metabolic syndrome is characterized by all of the following *except*
- (1) Atherogenic dyslipidemia
 - (2) Pro-inflammatory state
 - (3) Pro-thrombotic state
 - (4) None of the above
- 55.** Newer risk factors for CAD include all of the following *except*
- (1) Hyperhomocysteinemia
 - (2) Right ventricular hypertrophy
 - (3) Oxidative stress
 - (4) None of the above

- 56. Increased fasting total homocysteine level is associated with**
- (1) Coronary artery disease
 - (2) Peripheral vascular disease
 - (3) Cerebro-vascular disease
 - (4) All of the above
- 57. Pathological effects of Lp(a) is magnified in the presence of**
- (1) High TC/HDL-C ratio
 - (2) Low LDL
 - (3) Both of the above
 - (4) None of the above
- 58. Following are associated with CVD risk *except***
- (1) Factor VII
 - (2) tPA
 - (3) PAI-1
 - (4) Increased platelet aggregation
- 59. Vitamins protective against oxidative stress are**
- (1) E
 - (2) C
 - (3) A
 - (4) All of the above
- 60. Following risk factor is more prevalent in South Asians as compared to Caucasians :**
- (1) Hypertension
 - (2) Apo-B level
 - (3) Low HDL
 - (4) Body-mass index

- 61.** Within six years of heart attack
- (1) 18% of men will have another heart attack
 - (2) 7% of men will experience sudden death
 - (3) 8% of men will have a stroke
 - (4) All of the above
- 62.** Preventive strategy where major risk factors are addressed is
- (1) Primordial prevention
 - (2) Primary prevention
 - (3) Secondary prevention
 - (4) Tertiary prevention
- 63.** The most effective strategy for prevention of CAD in the community is
- (1) Primary prevention
 - (2) Secondary prevention
 - (3) Primordial prevention
 - (4) None of the above
- 64.** Strategy of treating people with a high level of cholesterol only is
- (1) Population health strategy
 - (2) Single raised risk factor strategy
 - (3) High baseline risk strategy
 - (4) None of the above
- 65.** Lifestyle modification consists of all of the following *except*
- (1) Tobacco cessation
 - (2) Physical exercise
 - (3) Stress reduction
 - (4) None of the above

- 66.** Following drugs are used for chemo-prevention *except*
- (1) Statins
 - (2) Beta-blockers
 - (3) ACEI
 - (4) None of the above
- 67.** Healthy diet includes large amounts of
- (1) Fruits and vegetables
 - (2) Trans-fat
 - (3) Lean meat
 - (4) All of the above
- 68.** Following carbohydrates are good for health *except*
- (1) Glucose drink
 - (2) Whole wheat
 - (3) Brown rice
 - (4) None of the above
- 69.** High glycemic index food causes
- (1) Quick and large increase in blood sugar level
 - (2) Increased risk of diabetes
 - (3) Increased risk of CAD
 - (4) All of the above
- 70.** Glycemic index of food is determined by all of the following *except*
- (1) Complexity of carbohydrate
 - (2) Type of starch
 - (3) Processing
 - (4) Fat content

- 71.** Unsaturated fats are mostly found in
- (1) Plant sources
 - (2) Animal sources
 - (3) Both of the above
 - (4) None of the above
- 72.** LDL is decreased and HDL is increased simultaneously by
- (1) Saturated fats
 - (2) Monounsaturated fats
 - (3) Polyunsaturated fats
 - (4) None of the above
- 73.** Important source of Omega-3 is
- (1) Canola oil
 - (2) Olive oil
 - (3) Fish oil
 - (4) None of the above
- 74.** HDL is reduced by all of the following *except*
- (1) Polyunsaturated fat
 - (2) Monounsaturated fat
 - (3) Saturated fat
 - (4) Trans-fat
- 75.** The worst fat of all is
- (1) Polyunsaturated fat
 - (2) Monounsaturated fat
 - (3) Trans-fat
 - (4) Saturated fat

- 76.** Following are true about the fat content of diet *except*
- (1) Fat intake should be less than 10% of total calories
 - (2) Cholesterol should be less than 30 mg
 - (3) Saturated fat should be less than 10%
 - (4) None of the above
- 77.** For a healthy diet all of the following are advisable *except*
- (1) Avoid foods rich in saturated fat and cholesterol
 - (2) Take plenty of fruits and vegetables
 - (3) Moderate the intake of salt
 - (4) None of the above
- 78.** Following are true about quitting smoking *except*
- (1) Within 1 year the risk of heart attack is reduced by 50%
 - (2) Lung cancer is reduced by 60% after 5 years
 - (3) Personality is adversely affected
 - (4) There is immediate decrease in anginal episodes
- 79.** Predominant beneficial action of alcohol is seen in people who drink
- (1) 1 to 2 oz. per day with 2 – 3 alcohol-free days every week
 - (2) 2 to 3 oz. per day every week
 - (3) 4 to 5 oz. per day with 2 – 3 alcohol-free days every week
 - (4) None of the above
- 80.** Benefits of physical exercise are all of the following *except*
- (1) Weight loss
 - (2) Favourable lipid profile
 - (3) Retardation of atherosclerotic process
 - (4) None of the above

- 81.** For the benefit of heart, every week exercise should be performed at least
- (1) 2 – 3 days
 - (2) 7 days
 - (3) 4 – 6 days
 - (4) None of the above
- 82.** Non-pharmacological management of blood pressure includes
- (1) Restriction of salt intake to less than 4 gm/day
 - (2) Reduction of overweight
 - (3) Regular physical exercise
 - (4) All of the above
- 83.** Causes of secondary hyperlipidemia are all of the following *except*
- (1) Hypothyroidism
 - (2) Alcohol excess
 - (3) Corticosteroid use
 - (4) None of the above
- 84.** All of the following are secondary prevention lipid trials *except*
- (1) 4S
 - (2) WOSCOPS
 - (3) LIPID
 - (4) HPS
- 85.** All of the following are “coronary heart disease equivalent” *except*
- (1) Risk 10 – 20% in 10 years plus two risk factors
 - (2) Diabetes mellitus
 - (3) Peripheral arterial disease
 - (4) None of the above

- 86.** In Indian heart patients, the triglyceride level should be kept below
- (1) 170 mg/dL
 - (2) 160 mg/dL
 - (3) 150 mg/dL
 - (4) 140 mg/dL
- 87.** Non-HDL target is
- (1) 20 + LDL target
 - (2) 30 + LDL target
 - (3) 40 + LDL target
 - (4) 50 + LDL target
- 88.** Following MI, the serum cholesterol remains depressed for
- (1) 2 weeks
 - (2) 4 weeks
 - (3) 6 weeks
 - (4) 8 weeks
- 89.** Hypertension in Type-2 diabetes mellitus
- (1) Usually indicates nephropathy
 - (2) Accelerates the decline of renal function in established nephropathy
 - (3) Predicts the development of nephropathy
 - (4) None of the above
- 90.** In the absence of co-morbid conditions, drug treatment of obesity is indicated when BMI is more than
- (1) 27 kg/sq.m
 - (2) 30 kg/sq.m
 - (3) 33 kg/sq.m
 - (4) 36 kg/sq.m