Question 1:

Compare communicable diseases to non-communicable diseases, in terms of age groups, natural history of disease, socioeconomic determinants and prevention measures.

	Communicable	**Non-communicable**
Age group at risk	Children and reproductive age groups	All age groups (obesity can affect children, cancers, injuries)
Natural history of disease	Incubation period : time from exposure to infectious agent to appearance of symptoms	Latency period: time from exposure to risk factor till disease development
Prevention	**Primary prevention:** High risk strategy: vaccination, education about avoiding exposure. **Secondary prevention:** Early detection of disease, surveillance and appropriate treatment. Tertiary	**Primary prevention:** High risk strategy: smoking, obesity, family history Population strategy: education, lifestyle changes, promoting healthy behavior. **Secondary prevention:** Early detection and treatment, screening programs for cancers and other NCDs. **Tertiary prevention:** Rehabilitation and improving quality of life.
Socioeconomic determinants	All socioeconomic levels, but different diseases (malaria, gastroenteritis, HIV)	All socioeconomic levels, but different diseases (Obesity, CHD, HTN, DM, Cancers)

Question 2:

With regards to Obesity, what are the different risk factors you can think of (modifiable, non-modifiable, cultural, political and environmental)?

Modifiable causes:

Diet, physical activity, behavioral and attitude, nutritional education (caloric intake, using local resources to modify dietary intake)

Non-modifiable:

Familial hyperlipidemia, genetically determined, gender, age, socioeconomic conditions (disease of the affluent)

Environmental, political and cultural causes:

Fast food advertisement, lack of recreational facilities for exercising, cultural restrictions (female exercising in schools, gyms, outdoor sports, inaccessibility), sedentary lifestyle (no walking, car transportation, no cycling, unavailability of public transportation), urbanization and modernization of living, no time for healthy cooking and reliance on ready-made food.

Ischemic heart disease? Or Diabetes?

Question 3:

You are working in the Ministry of Health and would like to plan and prevention and control program to address the rising epidemic of obesity in KSA. With regards to the framework of NCD prevention, how would you like to proceed? *(the same approach can be used for ischemic heart disease)*

Primary prevention measures:

1- Population strategy:

- Mass education of population regarding (risk factors, complications of obesity, healthy food habits, importance of exercise….etc)
- using different methods for mass education (media: TV, newspapers, magazines; radio; schools; lectures and seminars in public places; publications: books, brochures)

2- High risk strategy:

- Measures directed towards those with strong family history of obesity (promoting exercise, healthy nutrition)
- Measure directed towards people with strongly related chronic diseases (diabetics, hyperlipidemia)

Secondary prevention measures:

- Measures directed towards obese people (promoting exercise, healthy nutrition, risk factor identification)
- Debate on bariatric surgery(check!)
- Debate on medication

Tertiary prevention measures:

- Change nature of work to cope with their mobility
- Mobility in home
- lipid lowering drugs (ex. Diabetics who are not necessarily hyperlipidemics, they will be given lipid lowering drugs)
- Orthosis (canes for support in walking, wheelchairs, ….?)