

UNIVERSITY OF COLOMBO, SRI LANKA

FACULTY OF ARTS

Third Year Examination in Arts (Economics)-2017/2018

(End of 2nd Semester)

ECN 3285: Economics of Sustainable Development

Time Allowed: Two (02) Hours

Answer FOUR (04) Questions Only

1. (a) What are the principles of sustainable development as proposed by Herman Daly in 1990. (12 marks)
- (b) 'Traditional schools of economic thought (Keynesian and Classical/free markets) is not sufficient to address issues relating to sustainable economic development'. Do you agree with this statement? Discuss the reasons for your answer. (13 marks)

2. Read the following information and answer the questions below.

Knuckles Mountain Range is very rich in bio diversity and is in the Central Highlands of Sri Lanka. The highest peak in the Knuckles range is 1904 meters. A good part of the area still retains its pristine vegetation cover and comes under the Knuckles Conservation Forest area. The range is home to 1033 species of plants and 247 species of animals.

Knuckles Mountain Range is a watershed area. (*Hint: A watershed is a service provided by the natural environment. In a watershed area, rain water is collected and drained into rivers, lakes, tanks or underground*). The range gives birth to tributaries of the Mahaweli River such as the Hulu Ganga and Heen Ganga. Even today as was in the ancient times, water from the Knuckles Mountain Range feeds ancient irrigation systems such as Parakrama Samudra (tank). A leading supermarket chain is among those who use the watershed properties of Knuckles for producing bottled drinking water.

This mountain region is also famous for trekking/ hiking (*Hint: trekking is to journey on foot(hike) through a mountainous area*), bird watching and camping. The trekking trails are of various difficulty levels and attracts both expert mountain climbers and amateur hikers. The range also attracts both local and foreign nature bound leisure seekers(tourists) due to its bio diversity.

The mountain range (and its watershed service) supports livelihoods of paddy farmers and of the indigenous communities. Vital areas of the Knuckles Region have become degraded due to human activities such as encroachment, illegal logging, land clearing, tea planting and cardamom cultivation. The area is also prone to natural disasters including climate-induced events and landslides.

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- (a) Explain the impact of unsustainable economic activities carried out in the Knuckles Region on the well-being of those (farmers and of the indigenous communities) who are supported by the mountain range. (10 marks)
- (b) Assume that you are an economist attached to an environmental protection agency engaged in conserving the watershed service of the Knuckles range. Explain how the watershed in the Knuckles range can be valued using a suitable economic valuation method. In your explanation identify potential variables, survey population (if any) and how the value can be derived. (15 marks)
3. 'Gender equality of opportunity and gender equality of outcomes are closely related.' Discuss how sustainable development can be achieved by ensuring gender equality in outcomes and opportunities. Give examples when necessary to clarify your answer. (25 marks)
4. (a) What are the main conditions that should be met for a city to be recognized as a sustainable city. (5 marks)
- (b) 'Smart cities have smart plans for sustainable growth and development'. Discuss the challenges that the city of Colombo faces in terms of ensuring sustainable urbanization. (20 marks)
5. (a) Explain the difference between the benefit-cost analysis and the extended benefit-cost analysis. (5 marks)
- (b) Taking into consideration an environmental issue in Sri Lanka, discuss its impact on sustainable development. Use appropriate concepts when discussing your answer. (20 marks)
6. "There are challenges in all three dimensions of sustainable development-economic, social and environment". Discuss the challenges for meeting sustainable economic development. (25 marks)
7. Write short notes on any **FOUR (04)** of the following. (Equal marks for each component)
- (a) Theoretical differences between the Millennium Development Goals (MDGs) and United Nation's Sustainable Development Goals (SDGs).
 - (b) The System of Environmental-Economic Accounting (SEEA).
 - (c) Environmental Protection License (EPL).
 - (d) Environmental Impact Assessment (EIA).
 - (e) Coase Theorem and sustainable development.
 - (f) Strong form sustainability.

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