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Program: B. Sc. in Civil Engineering
Semester: 8th Semester

Date: 22 February 2023
Time: 10:00 am – 11:30 am

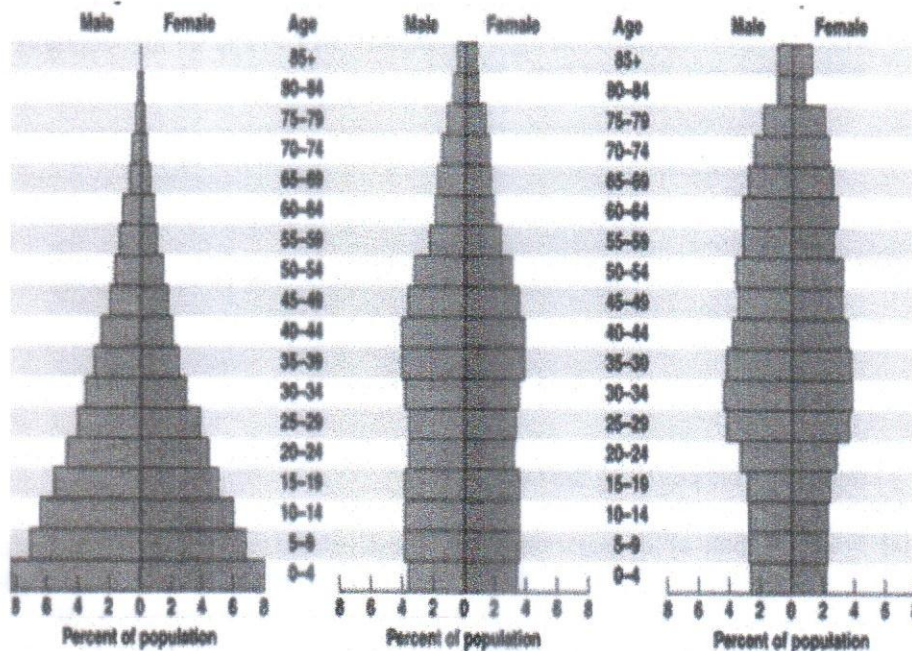
ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING

Mid-Semester Examination
Course Number: CEE 4807
Course Title: Socioeconomic Aspects of Development Projects

Summer Semester: 2021 - 2022
Full Marks: 75
Time: 90 Minutes

There are 3 (Three) questions. Answer all questions. The symbols have their usual meanings. Marks of each question and corresponding CO and PO are provided in brackets.

1. (a) Explain the dilemma of plans and projects' cycle. (5)
(CO1)
(PO1)
- (b) Draw the contrast among GNI, GNP, and GDP. Please classify the following 3 (three) age structures and justify the categorization. (10)
(CO2)
(PO2)



- (c) Apply informed reasoning from socioeconomic aspects of development projects to appraise national plans, sectoral programs, and development projects. Assess the linkage among development, environmental degradation, and poverty. (10)
(CO3)
(PO6)

2. (a) What are the key components of the sustainable development concept? Which strategic imperatives should be emphasized to achieve the sustainable development objectives? (5)
(CO1)
(PO1)
- (b) Assess the potential socioeconomic benefits of the Padma Bridge. (10)
(CO3)
(PO6)
- (c) A country wants to achieve HDI to IHDI ratio 1.20 ($HDI/IHDI = 1.20$). The inequality measures can be considered as 0.087 and 0.055 for life expectancy, mean years of schooling, respectively. Derive the loss (in %) due to inequality and coefficient of human inequality. Assume any reasonable value if needed. (10)
(CO2)
(PO2)
3. (a) Why HDI should be adjusted for inequality? Explain the 7 (seven) types of focus group discussion. (10)
(CO1)
(PO1)
- (b) A country wants to achieve HDI 0.7. The country's life expectancy at birth is 70 years, expected years of schooling is 10 years, and mean years of schooling is 5 years. What is the expected GNI per capita (2017 PPP\$) for that country? The table below may be considered for reference values. (5)
(CO2)
(PO2)

Dimension	Indicator	Minimum	Maximum
Health	Life expectancy (years)	20	85
Education	Expected years of schooling (years)	0	18
	Mean years of schooling (years)	0	15
Standard of living	GNI per capita (2017 PPP\$)	100	75,000

Derive linear equations to calculate the health, education, and standard of living dimension indices using the table above.

- (c) What are some of the major impacts of the development projects in Bangladesh? Which socio-economic indicators should be considered for mega projects, such as the MRT project in Dhaka? Explain how to reach an execution decision point from the socio-economic indicators. (10)
(CO3)
(PO6)