

**BACHELOR OF ARTS EXAMINATION, 2025****ECONOMICS****3rd Year, 2nd Semester****Subject Code : ECO/B/C 6.2****DEVELOPMENT ECONOMICS B1****Time : Two Hours****Full Marks : 30****Answer question number 1 and any two from rest :**

1. A. Consider a hypothetical nation with the following information

5+5=10

Indicator	Male	Female
Life expectancy at birth (years)	72.12	77.84
Expected years of schooling (years)	14	15
Mean years of schooling (years)	8.8	8.4
Wage ratio (female/male)	0.85	
Gross national income per capita (2011 PPP \$)	17,628	
Share of economically active population	0.64	0.36
Share of population	0.48	0.52

Calculate health index, education index and income index across the gender and make a comparative analysis of the result. Based on the above information calculate gender development index. 4+1=5

B. The distribution of consumption expenditure in two country A and B are given below :

Country	1st person	2nd person	3rd person	4th person	5th person	6th person
A	100	100	120	160	165	170
B	90	95	120	155	165	170

The population size of each country is 6 and the consumption expenditure based poverty line is 150 in both the countries. Calculate head count ratio, poverty gap ratio and income gap ratio for both the countries and do a comparative study. 4+1=5

2. Are the following statements true, false or uncertain? Provide a brief explanation to support your answer.

5+5=10

- a. In the Harris-Todaro model, an increase in the formal sector labour demand at a fixed wage rate must lower the percentage of people in the informal sector, as a fraction of the urban labour force.
- b. The *de facto* political power leads to the evolution of *de jure* democracy over the generation.

3. “An environmentalist owns a car and she knows driving. She however prefers to travel by public transport to her workplace. Her perceived happiness is maximized when she travel by train.” Analyse this situation in the light of capability approach. Discuss the major criticisms of the capability approach. 6+4=10

4. Suppose that the economy’s producing function is given by  $Y = K^\alpha L^{1-\alpha}$ , and assume that  $\alpha = 1/3$

- A. Is this production function characterized by constant returns to scale? Explain.
- B. Are there decreasing returns to capital and labour?
- C. Transform the production function into a relation between output per worker and capital per worker.
- D. For a given saving rate,  $s$ , and depreciation rate,  $\delta$ , give an expression for capital per worker in the steady state.
- E. Give an expression for output per worker in the steady state.
- F. Solve for the steady-state level of output per worker when  $s = 0.32$  and  $\delta = 0.08$ .
- G. Suppose that the depreciation rate remains constant at  $\delta = 0.08$ . while the saving rate is reduced by half, to  $s = 0.16$ . What is the new steady-state output per worker? 1+2+1+1+1+2+2=10

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