BACHELOR OF ARTS EXAMINATION, 2024

(3rd Year, 1st Semester)

ECONOMICS (HONOURS)

PAPER : DSE 5.1/1

(Economics of Health and Education)

Time : *Two Hours*   *Full Marks* : 30

*Answer **any three** from the following questions.*

The figures in the margin indicate full marks.

1. Distinguish between 'cohort' and 'period' probability of death. Define cohort life expectancy. Show how cohort life expectancy is derived from age and time-specific annual probability of death. Why is cohort life expectancy greater than period life expectancy?   3+2+3+2

2. *(a)* Suppose, in an economy there are 175 individuals in total and ₹ 100, ₹ 200, ₹ 300 and ₹ 400 are earned by 50, 25, 75 and 25 individuals respectively. Find the value of Gini coefficient of income for the economy.

   (b) Describe the construction of Education Lorenz Curve based on education attainment data. Why is the curve truncated along the horizontal axis?   4+(4+2)

3. *(a)* What are the sources of market failure in education? Do you think education should be subsidized? Why? Diagrammatically explain the implication of over-subsidy in this context.

   (b) Calculate the Inequality-adjusted Human Development Index (IHDI) for a hypothetical country on the basis of the following table :

Indicator	Value	Dimension Index	Inequality measure
Life expectancy (years)	69.8	0.783	0.168
Mean years of schooling	5.8	0.493	–
Expected years of schooling	12.9	0.714	–
Education index	–	0.577	0.204
Log of GNI	8.33	0.550	–
GNI (PPP dollar)	4154	0.046	0.177

   (2+2+2)+4

4. Discuss how education can act as a screening device in job market. How can this vary, if cost of acquiring signal differs with ability?   5+5

5. Is complete immunisation a socially desirable target for communicable disease? How can the Government implement socially optimal immunisation target? What will happen if the vaccine is not 100% effective?   4+3+3

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