University of Colombo Faculty of Arts

Bachelor of Arts Degree Examination (Special) - Fourth Year Semester End Examination- Semester 1 - 2020/2021

DMG 4168: Labour Force Projection Methods

Answer three (03) questions only

Calculators can be used

Time: Two (02) hours

This paper contains five (05) questions and two (02) pages

a) "Briefly explain the sources of data which can be used in analyzing the labour force in a country".

(05 Marks)

b) Examine the labour force indicators which can be used in analyzing labour force in a country by citing examples.

(15 Marks)

 a) Suppose you need to make a labour force projection for a country. Explain how you would plan your projection by using examples.

(05 Marks)

b) Suppose that you have been provided the following sets of data to project future activity rates for a country. By using the data given below, answer the following questions.

Age group	Activity rates f	for females
	2014	2019
15-19	35.5	38.8
20-24	67.5	72.5
25-29	62.5	60.0
30-34	45.5	48.8
35-39	42.0	38.0
40-44	65.0	72.5
45-49	64.0	70.0
50-54	52.0	52.0
55-59	45.0	44.0
60-74	20.0	28.0

 Suggest suitable technique/s for this projection and provide reasons for your suggestion.

(05 Marks)

ii. Project future activity rates by using an indirect extrapolation method and correction coefficient "a". (08 Marks)

Equation (a):
$$\Delta_{t,t_1}^x = (u_t^x \times \propto) \left(\frac{a_t^x \times u_t^x}{a_{t_0}^x \times u_{t_0}^x} \right)$$

iii. Interpret your results

(02 Marks)

3. (a) Once you projected the future activity rates for a country, explain three (03) calculations that you can compute based on the projected data.

(b) Explain how you would make policy recommendations for future labour force bals each calculation that you have suggested for the question 3(a) by providing examp

4. The following table provides male activity rates in 2019 for the country 'A'. Using: data and attached life table for the year 2011 for the country A, answer following quest

Age group	Malo Acti :
15-19	Male Activity rates
20-24	28.0
25-29	85.0
30-34	90.0
35-39	98.0
40-44	92.0
45-49	91.0
50-54	93.0
55-59	86.0
60-64	85.0
	44.0

- Calculate age specific gross years of active life
- b) Calculate percentages of total gross working years and total gross non-working year
- c) Calculate the total gross working years of a person by the age of 50 years and age of 6

(02 Marks

d) Calculate the age-specific net years of active life and interpret your results

e) Compare the above results of age specific gross years of working life and age specific net years of working life and interpret your results

(05 Marks)

- 5. Briefly explain the following relationships
 - a) Usually economically active population and currently economically active population
 - c) Under-employed persons and unemployed persons
 - d) Female labourforce participation and male labourforce participation

(05x4 = 20 Marks)

Life Table Male - 2011

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