

UNIVERSITY OF COLOMBO, SRI LANKA
FACULTY OF ARTS
SECOND YEAR END EXAMINATION IN ARTS (ONLINE)
SEMESTER I – 2020/2021
GYG 2129 – LOCATIONAL ANALYSIS

Instructions to Students:

- The question paper starts on page 2.
- All written assessments must be **handwritten**. Handwriting must be **clear and readable**.
- Answers should be written on an **A4 size paper** (ruled/lined paper/or otherwise), using a **black ball point pen**.
- The **index number must be written on the top right-hand side** of each page of the answer script. Do not write your name anywhere on the answer script.
- **Number the pages** of the answer script using the following format at the **bottom of the page**: E.g., if it consists of 5 pages 1/5, 2/5...etc.
- Use the **common front page** (provided on LMS) as the first page of the answer script. You may print, or hand write the front page which must be the first page of your assessment.
- The **total number of pages** should be indicated on the front page of the answer script.
- **Scan/take photos of the answer script and convert it to a single PDF file** in the order of the page numbers.
- The full page of the answer script must be properly covered in the scanned image, and the scanned image must be clear/readable.
- LMS does not permit individual pages to be uploaded separately.
- **The only acceptable file format is PDF. The PDF file should be named with your index number**, e.g. A 12345
- Uploading answer scripts as JPEG/JPG or any other form will not be permitted.
- Complete and upload the final version of the answer script to LMS **within the stipulated 5 hours**
- Once the answer script has been uploaded to LMS, take **a screen shot of the full page** of the LMS with the word ‘submitted’, as an acknowledgement and keep it with you.
- **If** there is an **unexpected technical issue** with the uploading of an answer script to LMS, you may send your answer script via email to exam2@arts.cmb.ac.lk immediately.

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Duration: 5 hours for completion and submission of answer scripts to LMS

Answer **three (03)** questions selecting at least **one** from each part.
The use of calculators is allowed.

Part I

01. i) Answer the following questions using appropriate examples
- a) Briefly explain the role of absolute location when analyzing the spatial distribution of Dengue patients in an area.
(02 Marks)
 - b) Briefly explain the suitability of Tobler's first law of Geography when studying the interactions of near and distance things.
(02 Marks)
 - c) State one similarity and one dissimilarity of a classification and regionalization.
(02 Marks)
- ii) a) Briefly discuss the importance of the knowledge of scales of measurements for locational analysis.
(04 Marks)
- b) Briefly discuss the importance of statistical knowledge for classifications and grouping techniques.
(04 Marks)
- iii) "Larger cities are surrounded by small cities and exhibit strong spatial relationships". Briefly assess this idea citing examples from Sri Lanka
(06 Marks)
- (Total 20 Marks)

Part II

02. “Locational analysis provides feasible platform to analyse large set of locational data in Human Geography” Critically evaluate this idea using suitable examples.

(20 Marks)

03. “Locational analysis has a potential to address not only spatial arrangement of a phenomena, but also temporal changes of the same phenomena”. Do you agree with this statement? Discuss your answer citing examples from real world.

(20 Marks)

Part III

04 i) Classify the data in **Table 1** into groups using an appropriate classification method considering the relationship of variables and explain reasons for your classification method.

(10 Marks)

ii) Prepare a summary table based on your classification.

(02 Marks)

iii) Discuss your results highlighting the interaction between different variables.

(08 Marks)

(Total 20 Marks)

Table 1: Land elevation and diversity of vegetation

Regions	Land elevation (m)	Vegetation diversity (Shannon)
1	350	1.70
2	200	1.40
3	254	1.21
4	267	1.34
5	301	1.48
6	420	1.30
7	340	1.80
8	401	1.60
9	400	1.50
10	370	1.78
11	218	1.33
12	338	1.68

05. i) Briefly explain what is “spatial concentration” (02 Marks)
- ii) Calculate Location quotient and Coefficient of localization for the Estate population in Sri Lanka using the data provided in **Table 2**. (10 Marks)
- iii) Discuss suitability of the two methods used in 5.ii in studying the clustering of different types populations for regional development, based on your results. (08 Marks)
- (Total 20 Marks)

Table 2: Population in 15 selected district - Sri Lanka , 2012

No	District	Urban population	Rural population	Estate population
1	Colombo	1,802,904	513,534	7,911
2	Gampaha	360,221	1,943,418	1,194
3	Kaluthara	109,069	1,07,246	37,633
4	Kandy	170,544	1,119,221	85,617
5	Matale	60,276	405,176	19,079
6	Nuwara Eliya	40,151	290,913	380,580
7	Galle	133,398	911,159	18,777
8	Mathara	96,570	694,948	22,530
9	Kurunegala	30,342	1,580,556	7,567
10	Puttalama	66,952	693,844	1,600
11	Polonnaruwa	0	406,072	16
12	Badulla	69,800	591,707	153,898
13	Monaragala	0	442,710	8,348
14	Rathnapura	99,451	888,845	99,711
15	Kegalle	15,993	767,469	57,186

Source: Department of Census and Statistics, Sri Lanka, 2012