

UNIVERSITY OF COLOMBO, SRI LANKA

FACULTY OF ARTS

FOURTH YEAR END EXAMINATION IN ARTS (ONLINE), SEMESTER I – 2020/2021

GYG 4173: Aerial Photo Interpretation

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 **exam4@arts.cmb.ac.lk** [Please insert the accurate email address according to the year] immediately.

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GYG 4173 - Aerial Photo Interpretation

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

Answer **three (03)** questions only.

All questions carry **equal marks**

Word limit for each question: **The answer for a question carrying 10 marks should not be exceed 600 words.**

01.

(i). Explain with suitable examples, the “photo characteristics errors” that could be found in the black and white aerial photo interpretation process. (10 marks)

(ii). “The colour/tone is the key photo characteristic that is required to distinguish ground features in the black and white aerial photo interpretation process”. Discuss this statement with suitable examples.

(10 marks)

02.

(i). Providing appropriate examples, examine the disadvantages in the “key techniques of terrain classification” in black and white aerial photo interpretation.

(10 marks)

(ii). “Knowledge of the formation processes of landforms is the fundamental requirement for terrain classification”. Discuss this statement considering the non-linearity of landform formation process.

(10 marks)

03.

- (i) Explain with examples how the denudational, transportation and depositional processes are important in identifying different land-features in the black and white aerial photo interpretation process. (10 marks)
- (ii). “The Hydrological Cycle plays a key role in determining fluvial features”. Discuss the importance of this statement in the hydrological aerial photo interpretation process. (10 marks)

04.

- (i). Examine the key characteristics of the river course shown in the aerial photo no 21 given in figure 1 (see page 4). (10 marks)
- (ii). Considering both the satellite and aerial images, explain the key processes found in figure 2 (see page 5). (10 marks)

05.

- (i). Discuss to what extent the aerial photographs help to understand the importance of the physical and ecological components of the Traditional Tank System of Sri Lanka with suitable examples. (10 marks)
- (ii). “The Traditional Tank Cascade System is a more sophisticated water management system in the Dry Zone of Sri Lanka”. Do you agree with this idea? Examine your answer with appropriate examples from satellite images and aerial photos. (10 marks)

06.

- (i). Discuss the disadvantages of a land use and land cover map prepared based on the black and white aerial photo interpretation process. (10 marks)
- (ii). “The traditional land use and land cover classification introduced in 1952 is more appropriate to interpret the land use and land cover dynamics in the present world”. Critically examine this idea with suitable examples. (10 marks)

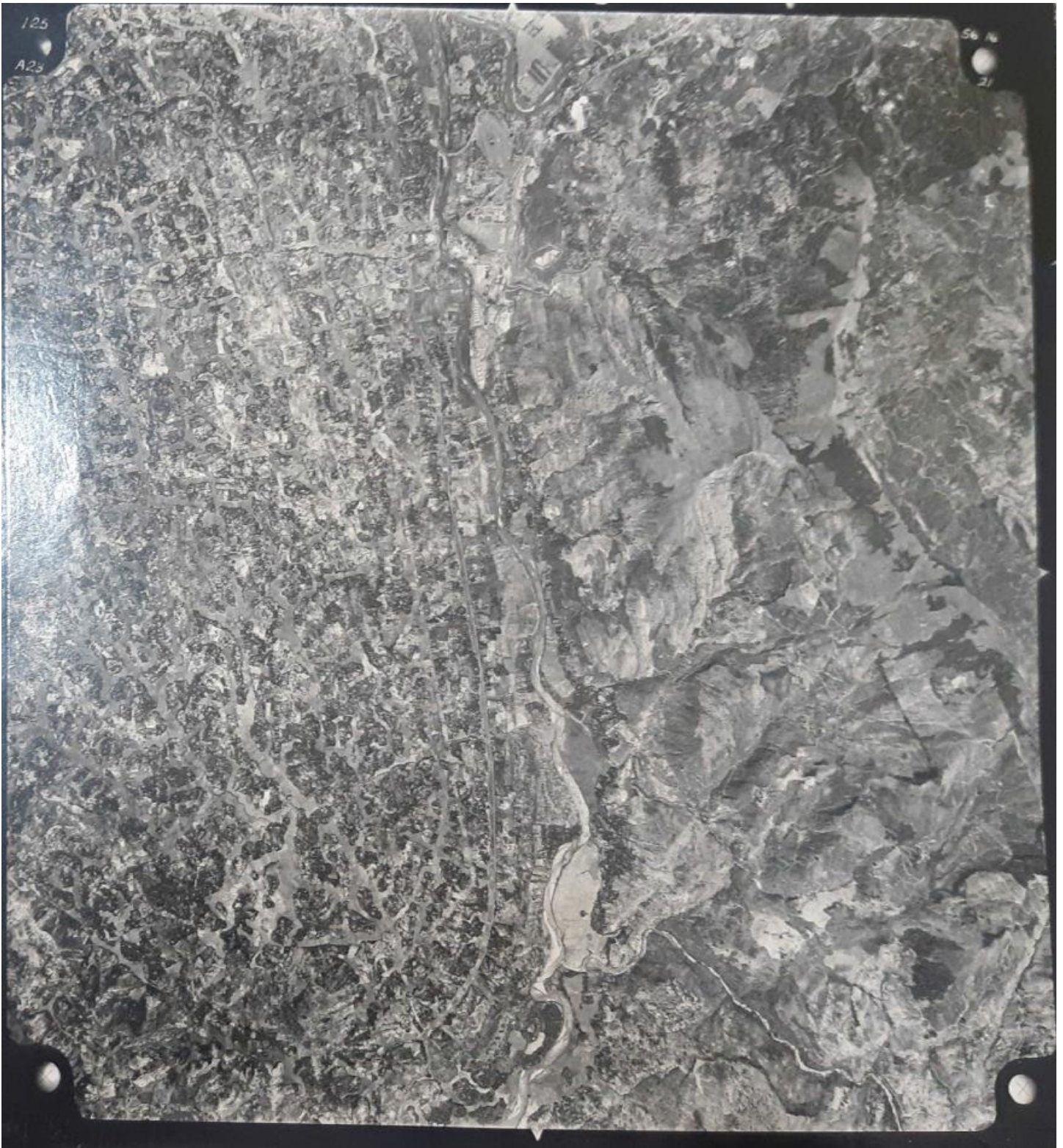


Figure1: Air photo no 21

Source: Survey Department of Sri Lanka (1956).



Figure 2: River mouth of a main river of Sri Lanka (Left side panel: Satellite view/2021; Right side panel: Aerial photo view/1983)

Sources: Satellite image (Google Earth Pro, 2021); Air photo no 63 (Survey Department of Sri Lanka, 1983).