
UNIVERSITI SAINS MALAYSIA

Final Examination
Academic Session 2007/2008

April 2008

JMG 213E – Techniques In Geography
[Teknik-Teknik Dalam Geografi]

Duration: 3 hours
[Masa: 3 jam]

Please ensure that this examination paper contains FIVE printed pages before you begin the examination.

Answer FOUR questions only. If you answer more than four questions, only the first four will be graded. You may answer either in Bahasa Malaysia or in English.

Read the instructions carefully before answering.

Each question is worth 25 marks.

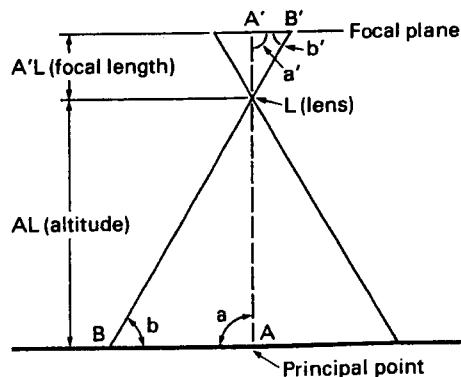
[Sila pastikan bahawa kertas peperiksaan ini mengandungi LIMA muka surat yang bercetak sebelum anda memulakan peperiksaan ini.]

Jawab EMPAT (4) soalan. Jika calon menjawab lebih daripada empat soalan, hanya empat soalan pertama mengikut susunan dalam skrip jawapan akan diberi markah. Anda dibenarkan menjawab sama ada dalam Bahasa Malaysia atau Bahasa Inggeris.

Baca arahan dengan teliti sebelum menjawab soalan.

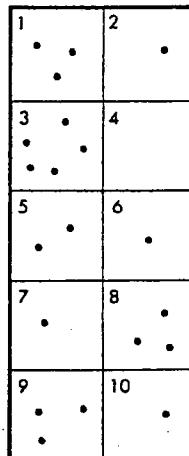
Setiap soalan diperuntukkan 25 markah.]

1. Discuss the direct and indirect methods of map distance measurement.
(25 marks)
2. Give the definition of contour line and explain the function of contours.
(25 marks)
3. (a) Discuss the main differences between isometric lines and isopleths.
(10 marks)
(b) Describe the two types of cartograms.
(15 marks)
4. (a) Based on the figure below, show the procedures to calculate the scale of aerial photograph.
(5 marks)



- (b) Describe the two types of remote sensing devices.
(10 marks)
- (c) Explain the two types of aerial photographs.
(10 marks)

5. (a) State the weaknesses and strengths of quadrat analysis and “nearest neighbour analysis” in analysing point distribution patterns. (10 marks)
- (b) Calculate the variance mean ratio for random distribution using quadrat analysis based on figure below. (15 marks)



6. (a) Construct an appropriate graph to represent the data below. (15 marks)

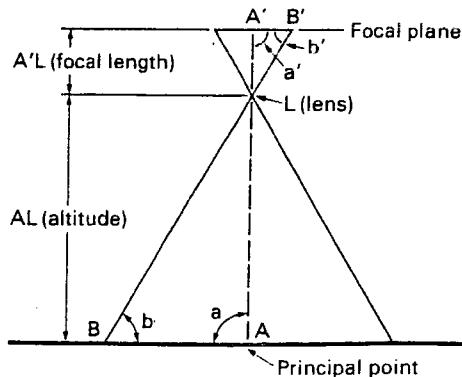
Table 1: The number of PATI between 2005-2007 in Malaysia

| Origin State | 2005 | 2007 |
|--------------|---------------|--------------|
| Indonesia | 1.025 million | 1.67 million |
| Bangladesh | 0.23 million | 0.33 million |
| India | 0.15 million | 0.25 million |
| China | 0.57 million | 0.82 million |
| Vietnam | 0.052 million | 0.13 million |

Sources: Department of Immigration 2008

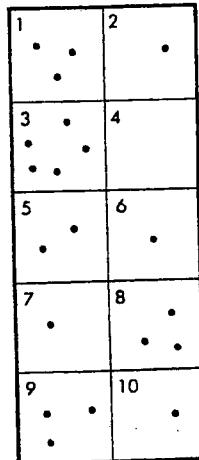
- (b) Explain the method used. (10 marks)

1. Bincangkan kaedah langsung dan tidak langsung untuk mengukur jarak di atas peta.
(25 markah)
2. Berikan definisi garisan kontor dan terangkan fungsi-fungsi garisan kontor.
(25 markah)
3. (a) Bincangkan perbezaan utama antara garisan isometrik dengan isopleth.
(10 markah)
(b) Jelaskan dua jenis kartogram.
(15 markah)
4. (a) Berdasarkan rajah di bawah, tunjukkan prosedur untuk mengira skala foto udara.
(5 markah)



- (b) Jelaskan dua jenis isyarat penderiaan jauh.
(10 markah)
- (c) Terangkan dua jenis foto udara.
(10 markah)

5. (a) Nyatakan kelemahan dan kekuatan analisis qudrat dan analisis “nearest neighbor” dalam menganalisa corak taburan titik.
(10 markah)
- (b) Kirakan nisbah purata varian untuk taburan rambang dengan menggunakan analisis qudrat berdasarkan gambarajah di bawah.
(15 markah)



6. (a) Binakan graf yang tepat untuk mempersembahkan data di bawah:
(15 markah)

Jadual 1: Bilangan PATI antara 2005-2007 di Malaysia

| Negara asal | 2005 | 2007 |
|-------------|---------------|--------------|
| Indonesia | 1.025 million | 1.67 million |
| Bangladesh | 0.23 million | 0.33 million |
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Sources: Department of Immigration 2008

- (b) Jelaskan kaedah yang anda gunakan.
(10 markah)

