



**SECTION A: COMPULSORY QUESTION**

Question 1

- (a) Explain the methods used in estimating the spatial average precipitation. (15 marks)
  - (b) Fig. 1 shows a catchment with station precipitation values. Estimate the average precipitation of the catchment using the Thiessen Polygon method. (25 marks)
- (40 marks)**

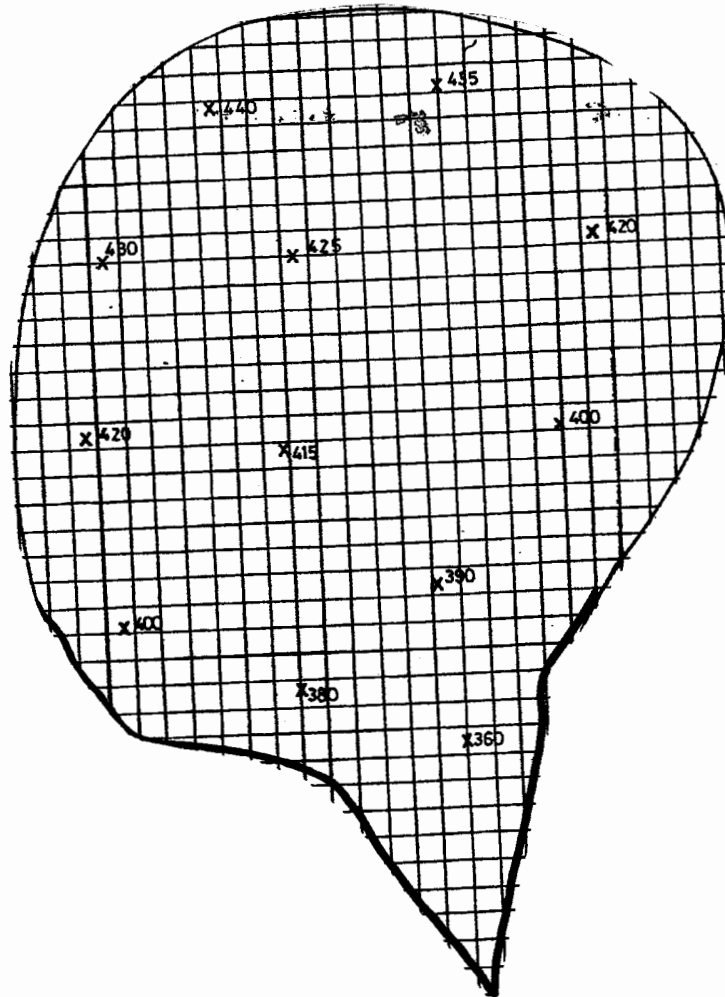


Figure 1 Hypothetical catchment area with station monthly precipitation values  
(one square is 1 square kilometre)

**SECTION B: ANSWER ANY TWO QUESTIONS**

**Question 2**

- (a) Explain the components of the hydrologic cycle. (10 marks)
  - (b) Discuss why water is a renewable resource (10 marks)
  - (c) 'The hydrologic cycle is regarded as a water purifying mechanism'. Discuss. (10 marks)
- (30 marks)**

**Question 3**

Explain the factors that affect the rate of evaporation. (30 marks)

**Question 4**

- (a) Explain how you would go about in classifying the climate of Lavumisa. (15 marks)
  - (b) Explain how climate affects the agricultural activities in Swaziland. (15 marks)
- (30 marks)**

**Question 5**

Describe two methods of measuring discharge. (30 marks)