

Quiz

1. Measured values of precipitation are reported as
 - I. Depth of precipitation near rain gauge
 - II. Volume that will fall over an area represented by the gauge
 - III. Depth to which it would cover an area
 - IV. Volume of water fallen over the catchment.

2. If rainfall against the date 26 Feb. is written as 43.2 mm, it implies that
 - I. Rain of 43.2 mm fell on 26 Feb.
 - II. On 26 Feb. rain fell at rate of 43.2 mm/hour.
 - III. Rain of 43.2 mm fell between 8:30 am on 25 Feb. and 8:30 on 26 Feb.
 - IV. Rain of 43.2 mm fell between 8:30 am on 26 Feb. and 8:30 on 27 Feb.

3. Which of the following method of spatial averaging can take into consideration the orographic effects, storm orientation, etc.
 - I. Iso-pluvial method
 - II. Thiessen polygon
 - III. Isohyetal method
 - IV. Iso-orograph method

Tutorial

1. Write four errors that can take place while entering rainfall data in the records.

2. When rainfall reported at a group of six stations in a basin was being examined for spatial consistency, doubts arose about the value reported at Majgawn. Distance between Majgawn and the other five stations are given.

Station	Borina	Hansraj	Rehli	Majgawn	Borina	Jabera
Rainfall (mm)	112.1	99.5	103.3	220.7	89.7	92.1
Distance from Majgawn (km)	61	43	51	0	25	36

Check the values at Majgawn for spatial consistency.

3. For a catchment, the rainfall data at six stations for September month along with their Thiessen weights are as given in Table below.

Station	Borina	Hansraj	Rehli	Majgawn	Borina	Jabera
Rainfall (mm)	112.1	99.5	103.3	220.7	89.7	92.1
Distance from Majgawn (km)	0.21	0.05	0.33	0.18	0.14	0.09

Find the weighted average rainfall for the catchment by using the arithmetic average and Thiessen polygon method.

4. A catchment has six rain gauge stations Borina, Hansraj, Rehli, Majgawn, Borina, and Jaber. Normal monthly rainfall at these stations is known. The observed rainfall at the stations Borina, Hansraj, Rehli, Borina, and Jaber for a storm event is known and is given in the following table. Find the missing rainfall at station Majgawn by use of normal ratio method.

Station	Borina	Hansraj	Rehli	Majgawn	Borina	Jaber
Normal Rainfall (mm)	112.1	99.5	103.3	120.0	89.7	92.1
Event Rainfall (mm)	61	43	51	?	52	65

5. Using the data of question 4, estimate rainfall at Majgawn station by using the distance power method.