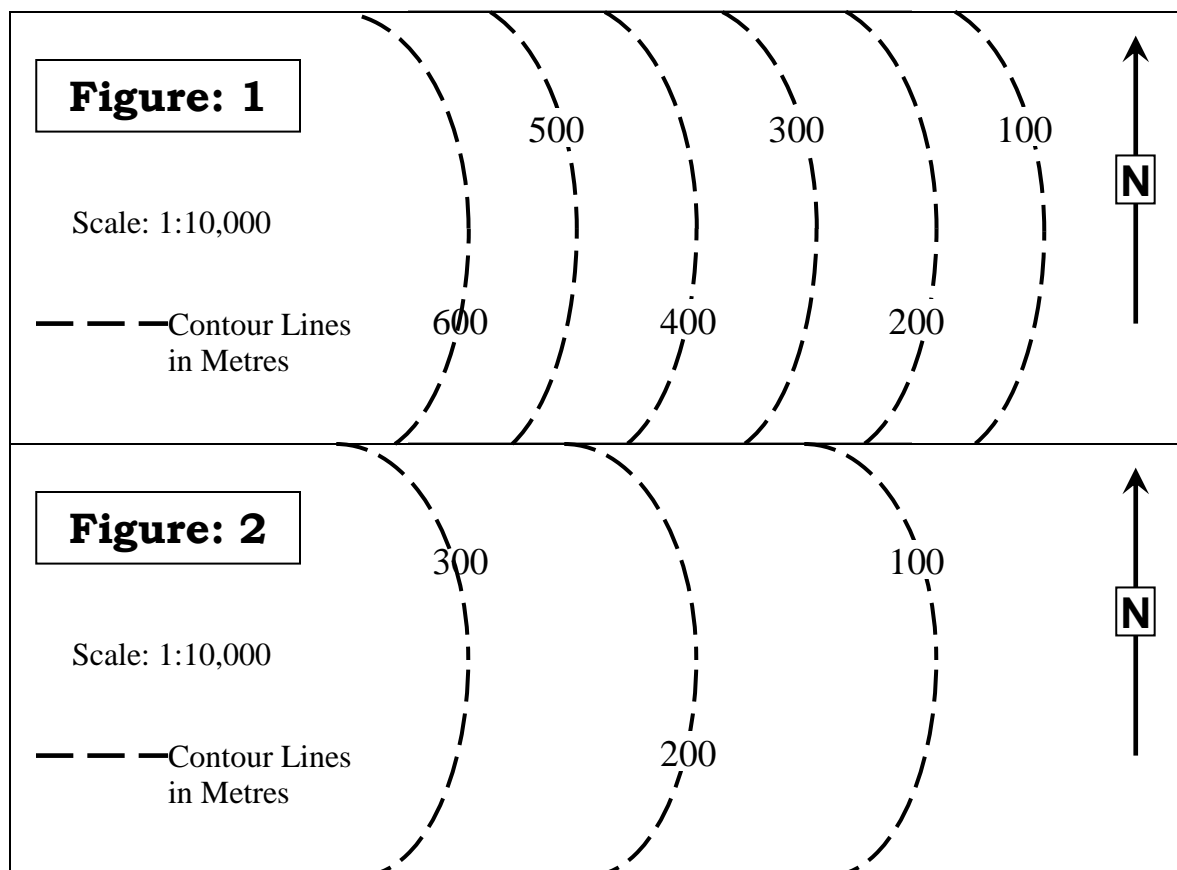


# STUDY OF TOPOGRAPHIC CONTOUR PATTERNS

DEPARTMENT OF GEOLOGY  
JOGAMAYA DEVI COLLEGE



## Questions:

1. Describe the contour patterns in Figure 1 and Figure 2.
2. Draw suitable vertical sections of the topographic surface.

**Figure 1:** The contour pattern in this figure represents a **slope**.

Six open contour lines are shown here. The 600 mt contour line is situated in the west, and the values of the contours decrease gradually towards east. This indicates the area slopes towards east.

The contour lines are uniformly spaced, i.e. the spacing between them is more or less constant. This indicates it is a **uniform slope**.

**Figure 2:** The contour pattern in this figure represents a **slope**.

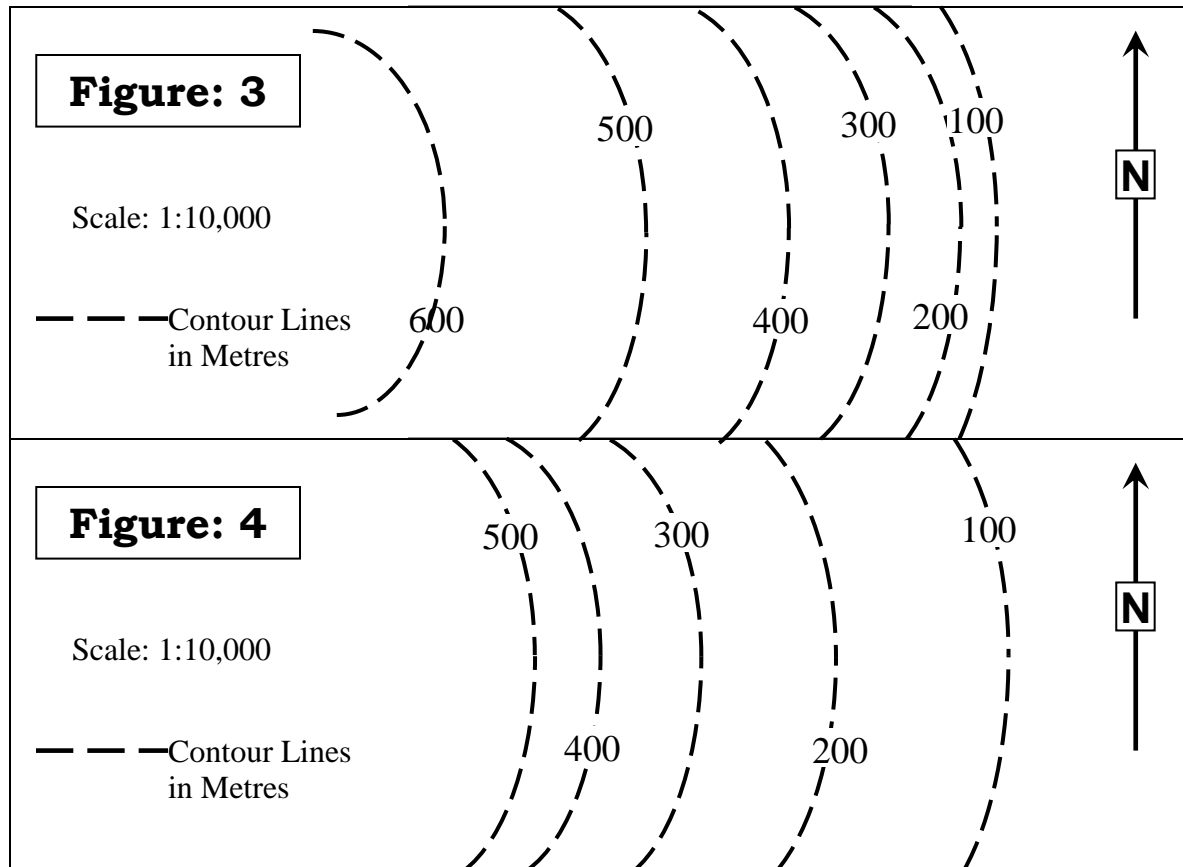
Three open contour lines are shown here. The 300 mt contour line is situated in the west, and the values of the contours decrease gradually towards east. This indicates the area slopes towards east.

The contour lines are uniformly spaced, i.e. the spacing between them is more or less constant. It is therefore a **uniform slope**.

The spacing of the contour lines is much greater than that in Figure 1. This indicates the slope is much gentler than that in Figure 1

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## Questions:

3. Describe the contour patterns in Figure 3 and Figure 4.
4. Draw suitable vertical sections of the topographic surface.

**Figure 3:** The contour pattern in this figure represents a **convex** slope.

Six open contour lines are shown here. The 600 mt contour line is situated in the west, and the values of the contours decrease gradually towards east. This indicates the area slopes towards east.

The contour lines are not uniformly spaced. The spacing between them is greater in the upper parts and less in the lower parts. This indicates the slope is gentle in the upper regions and steep in the lower regions. Hence it is a **convex slope**.

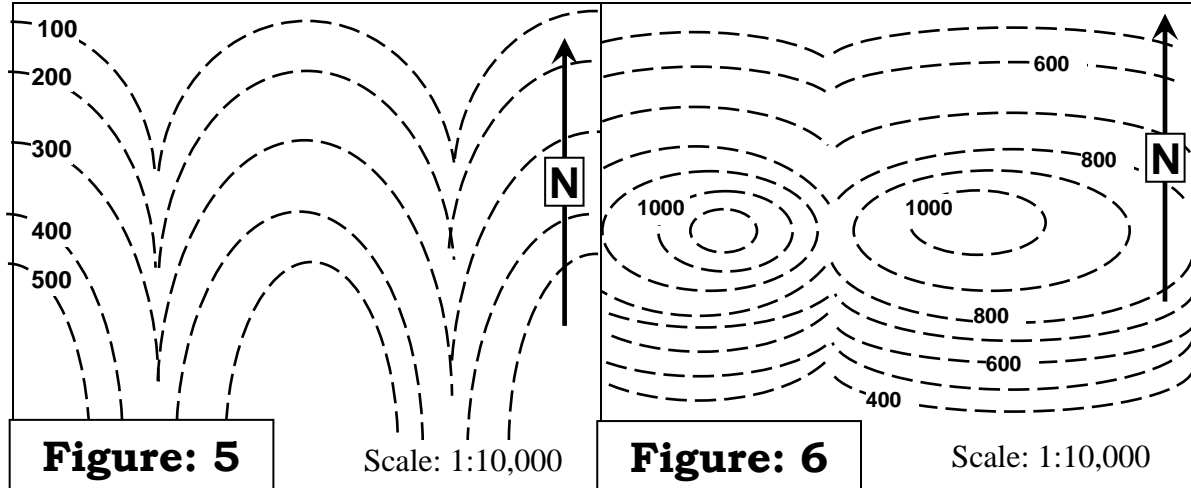
**Figure 4:** The contour pattern in this figure represents a **concave** slope.

Six open contour lines are shown here. The 600 mt contour line is situated in the west, and the values of the contours decrease gradually towards east. This indicates the area slopes towards east.

The contour lines are not uniformly spaced. The spacing between them is less in the upper parts and greater in the lower parts. This indicates the slope is steep in the upper region and gentle in the lower region. Hence it is a **concave slope**.

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## Questions:

5. Describe the contour patterns in Figure 5 and Figure 6.
6. Draw suitable vertical sections of the topographic surface.

**Figure 5:** There are two valleys in the area, separated by a ridge.

The highest (500 mt) contour line is situated in the south, and the height of the contours decrease gradually towards north. Hence the general slope of the area is towards north.

In the valleys, the apices of the **contour 'V's** point towards the **highlands**. (i.e. towards south). The contour lines become gradually **higher** from the inner to the outer regions.

There are two valleys in the area. The valley axes trend north-south. Both valleys slope towards north.

In the ridge, the apices of the **contour 'V's** point towards the **lowlands**. (i.e. towards north). The contour lines become gradually **lower** from the inner to the outer regions.

The ridge axis trends north-south.

**Figure 6:** This is the typical contour pattern of mountain ridges or long, narrow, hill-chains.

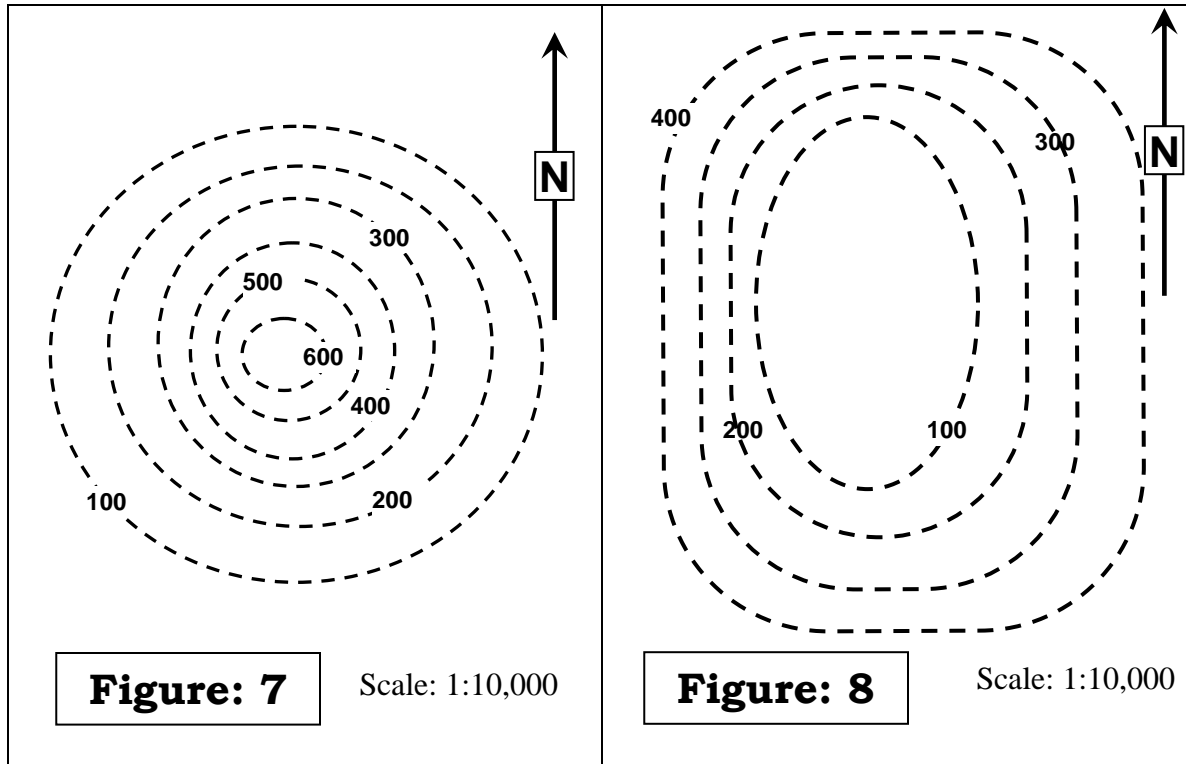
The summit or peak of the ridge is represented by closed, elliptical contour lines of 1000 mt or higher elevation. They are surrounded by curved, open contour lines roughly aligned east-west. The ridge axis trends east-west.

The contours are widely spaced in the north and closely spaced in the south. This indicates the southern slope of the mountain ridge is steeper than the northern slope.

There is a **pass** or **col** in between the two adjacent peaks, having height 800 – 900 mts.

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## Questions:

7. Describe the contour patterns in Figure 7 and Figure 8.
8. Draw suitable vertical sections of the topographic surface.

**Figure 7:** It represents a conical hill.

There are six closed, elliptical contour lines. The highest contour line (600 mt) is situated at the centre, and the heights of the contours gradually decrease towards the peripheral region. This indicates the area is **higher** in the inner region and **lower** in the outer region.

The closed, elliptical contour lines are more or less uniformly spaced. Therefore the hill has uniform slope in all directions.

The top of the hill is very **small** and **rounded**.

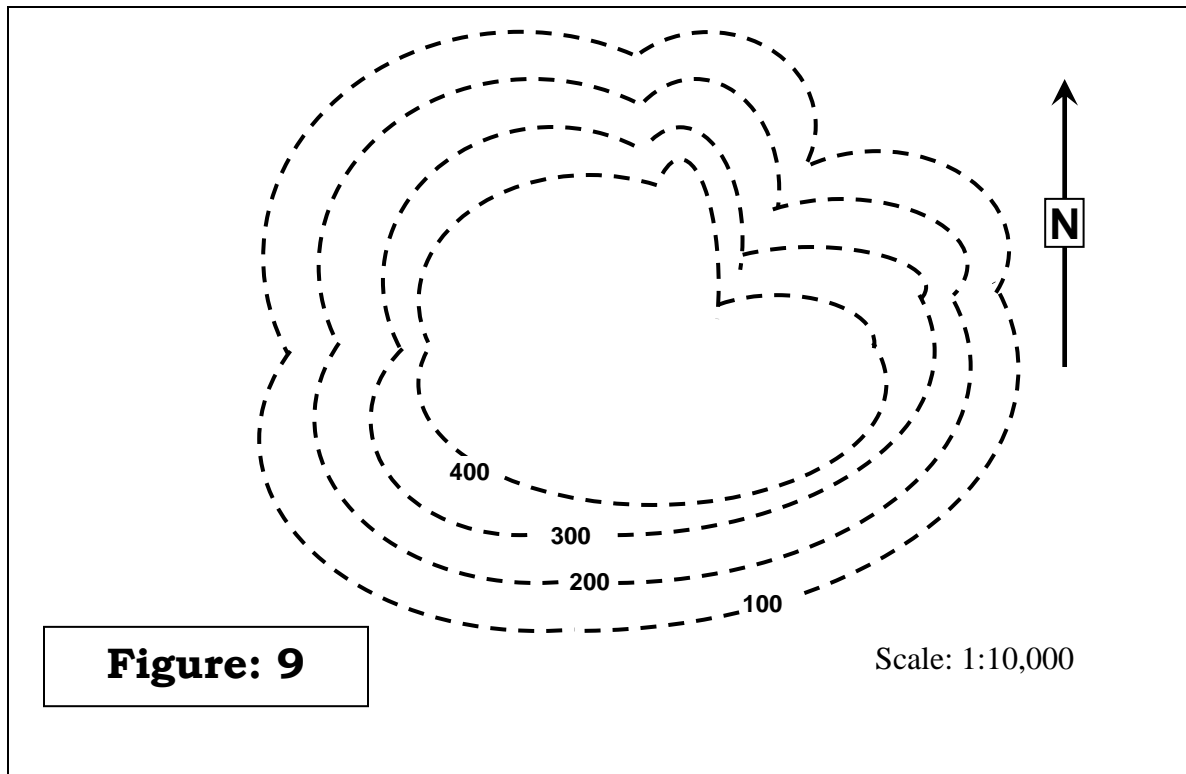
**Figure 8:** It represents a basin.

There are four closed, elliptical contour lines. The lowest contour line (100 mt) is situated at the centre, and the heights of the contours gradually increase towards the peripheral region. This indicates the area is **lower** in the inner region and in the **higher** outer region.

The closed, elliptical contour lines are not uniformly spaced. The northern and western slopes of the basin are steeper than the southern and the eastern slopes.

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## Questions:

9. Describe the contour pattern in Figure 9.
10. Draw suitable vertical sections of the topographic surface.

**Figure 9:** It represents a plateau.

There are four closed, irregular-shaped contour lines. The highest contour line (400 mt) is situated at the centre, and the heights of the contours gradually decrease towards the peripheral region. This indicates the area is **higher** in the inner region and **lower** in the outer region.

The top of the plateau is **broad** and **flat**, in contrast to the small, rounded or pointed summit of a hill.

There are four valleys originating from the central region of the plateau.

Valley 1 slopes towards north.

Valley 2 slopes towards north-east.

Valley 3 slopes towards east.

Valley 4 slopes towards west.

This radial drainage pattern is characteristic of a highly eroded plateau.