

Geomorphology – Question Bank

Q.1/ Find the slope angle and slope distance between points A and B in the figure-

Q.2/ Find the coordination of point-X in the figure-1, if it has bearing to two locations A and B, bearing to location A = and bearing to location B =

Q.3/ write the equation of the following with explanation of all parameters in each equation and units:

- a- Relief ratio
- b- Hypsometric integral
- c- Basin form factor
- d- Circularity ratio
- e- Elongation ratio
- f- Stream frequency

Q.4/ What is the main Characteristics of Contour Lines in topographic maps?

Q.5/ Draw the Frequency Rose diagram for the basin according to the data in the table

(1cm = 5%):

Class	Frequency %	Class	Frequency %	Class	Frequency %
0-30	15	120-150	--	240-270	20
30-60	--	150-180	--	270-300	--
60-90	--	180-210	30	300-330	10
90-120	25	210-240	--	330-360	--

Q.6/ Find the Bifurcation ratio (Rb), Drainage frequency (Fd) for basin in figure (1)?

Q.7/

- a- What is the main Characteristics of Contour Lines in topographic maps?
- b- Find the elevation of point A, if you know the slope distance between points A

and B = 2.5km (point B lower than point A), the slope angle = 2° and elevation of point B = 100m.

Q.8/ Find the longitude and latitude coordination for X station in the figure below, and bearing from X station to A and B sites.

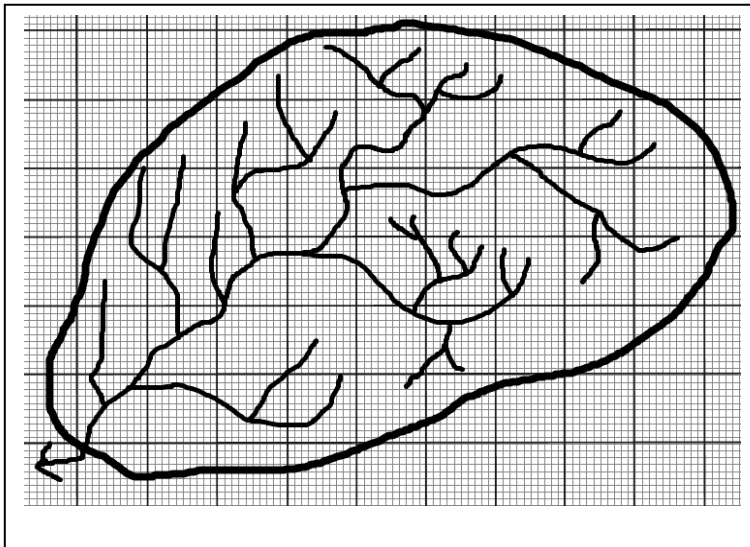
Q.9/ write the equation of the following with explanation of all parameters in each equation and units:

- a- Relief ratio
- b- Hypsometric integral
- c- Basin form factor
- d- Circularity ratio
- e- Elongation ratio

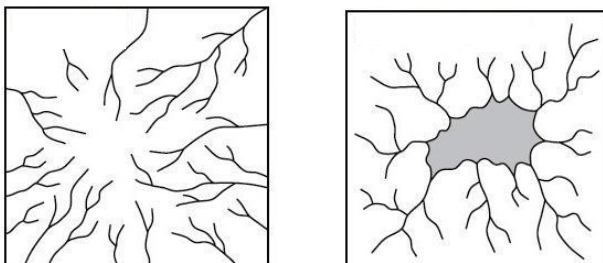
Q.10/ Find the bearing and Backbearing of the following:

Backbearing	Bearing
350°	
	S 63° E
179°	
	N 38° W

Q.11/ Find the Bifurcation ratio (R_b) for the basin in the figure.



Q.12/ what's the difference between two locations A & B in *Elevation*?



A

A

B

Q.13/ Convert the following:

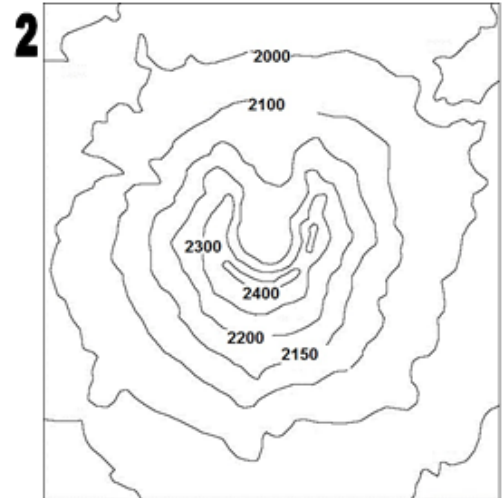
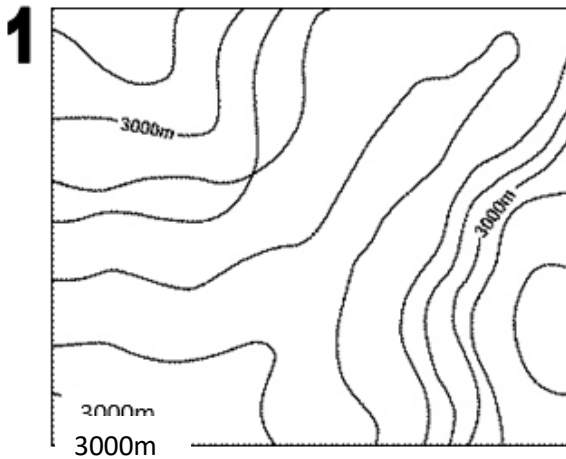
a- 349° to the back bearing.

b- N 63° E to the bearing.

c- 1cm on the map equal 2km to fractional scale.

Q.14/ Correct if the false of the following:

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Q.15/ a- Find the Latitude and Longitude with Direction of point A in the figure (b).

b- Find the slope distance and slope angle between points B and C in the figure (b).