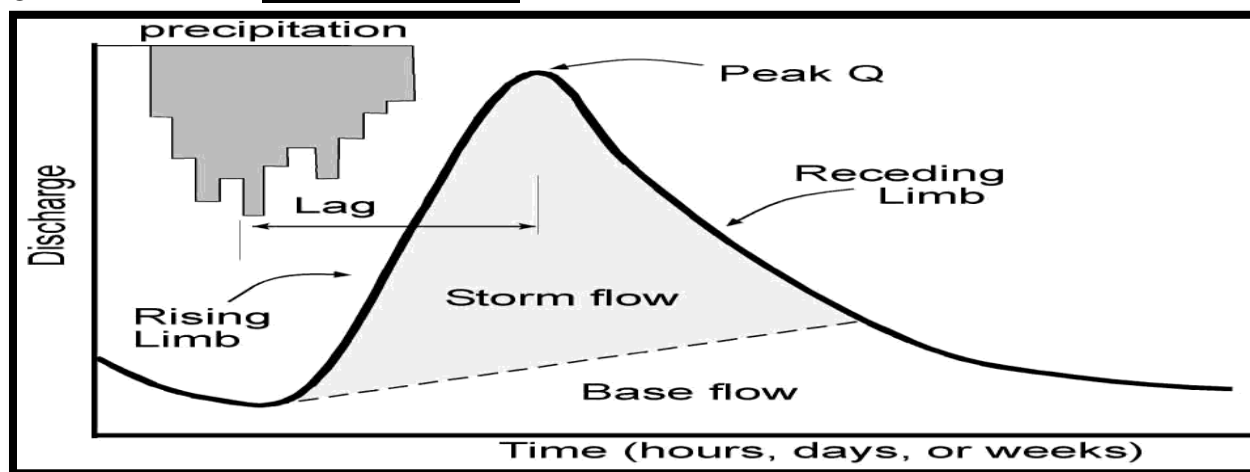


Question 1: Flood Hydrograph



i. Explain why the falling or recession limb is less steeper than the rising limb.

The falling limb (or recession limb as it is sometimes known) is when discharge decreases and the river's level falls. It has a gentler gradient than the rising limb as most overland flow has now been discharged and it is mainly throughflow which is making up the river water.

ii. Explain the difference between storm flow and base flow.

The base flow is the river discharge maintained by groundwater and rises only slightly due to the rain. Storm flow: the river discharge contributed by surface runoff and throughflow (a small amount of base flow is also involved) in a single rainstorm.

iii. Briefly explain lag time.

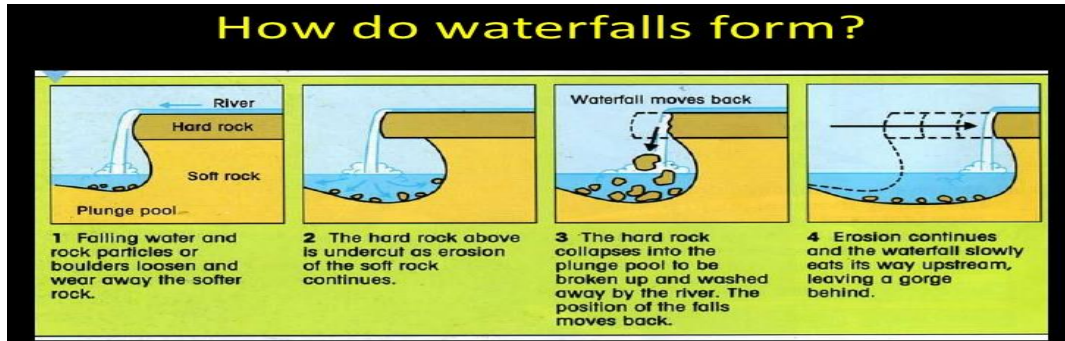
The lapse in time between peak discharge and peak rainfall is called the lag time.

iv. If the drainage basin of River A was forested explain what would happen to the flood hydrograph.

Leaves intercept the rainfall so less water would reach the river.

The trees would reduce the amount of surface runoff so it would take longer for water to get to the river so the lag time would increase.

Question 2: Waterfall Formation



Describe the main features of a waterfall using the resource above.

A **waterfall** is a sudden drop along the river course. It forms when there are horizontal bands of resistant rock (hard rock) positioned over exposed, less resistant rock (soft rock). The soft rock is eroded quicker than the hard rock and this creates a step.

Explain how a gorge is formed.

Streams carve through hard layers of rock, breaking down or eroding it. Sediment from the worn-away rock is then carried downstream. Over time, this erosion will **form** the steep walls of a **gorge**. The flooding of streams or rivers increases the speed and intensity of this erosion, creating deeper and wider **gorges**.

Question 3: Word Search- Climate Change

