

Name:

Subject: Geography Batch: RB-10 Submission Date: 29.06.23 Marks:

Please mention Reg. No. and Assignment code of respective class. Use single assignment sheet (i.e. 2 pages) for 1 question. Limit your answers to 150 - 170 words.

Explain different types of mass-movements. Enumerate the reasons for mass movements in the Himalayas and the Western Ghats.

Mass movements involve movement of weathered material along down hill slope under the influence of gravity with or without assistance of water.

### Types of Mass Movements

#### Slow Movement

- creep
- solifluction

#### Rapid Movement

- landslide
- Earthflow
- Mud flow
- Rockslide/fall

#### 1) Slow Mass Movements :-

i) Creep :- • Slow down hill movement of the soil and weathered mantle occurring along slope.

ii) Solifluction :- • Slow movement of soil mix with water.





## 2.) Rapid Movements:-

- i) landslide :- • Movement of cross-section of hill-slope  
• Material maintains contact with the surface as it moves.
- ii) Earth flow :- • Movement of terraces and hill-side due to the weakening of lower layer
- iii) Mud flow :- • Rapid movement of masses with un-compacted soil saturated with water.
- iv) Rock slide :- Rapid movement of broken rock material

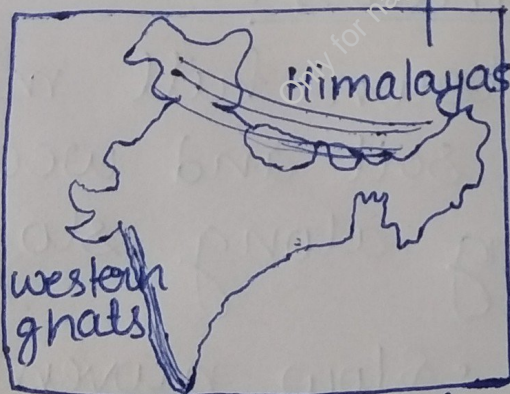
## Reasons for mass movements in

### In Himalayas

- They are tectonically active
- Mostly made up of sedimentary rocks
- Unconsolidated deposits
- Slopes are very steep

### In Western Ghats

- Mechanical weathering due to temperature changes
- Heavy amount of rainfall
- Debris avalanches
- Slopes are steeper with almost vertical cliff.



Mass movements are important natural geomorphic agents that shape mountain landforms and redistribute sediments and debris over gentler terrain and water bodies.