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## Mains Practice Questions

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Q. "Our earth is a playfield for two opposing groups of geomorphic processes."  
Discuss. (250 words)

08 Oct, 2021 GS Paper 1 Geography.

### Approach

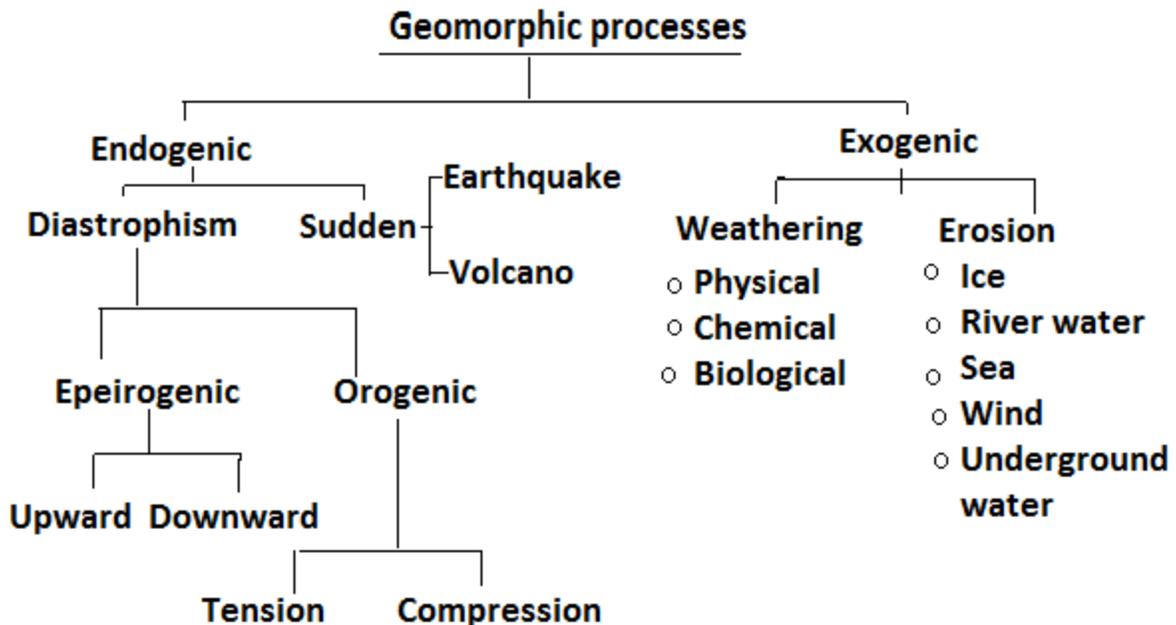
- Briefly define geomorphic processes.
- Explain the two types of processes and their further classification with diagrams.

### Introduction

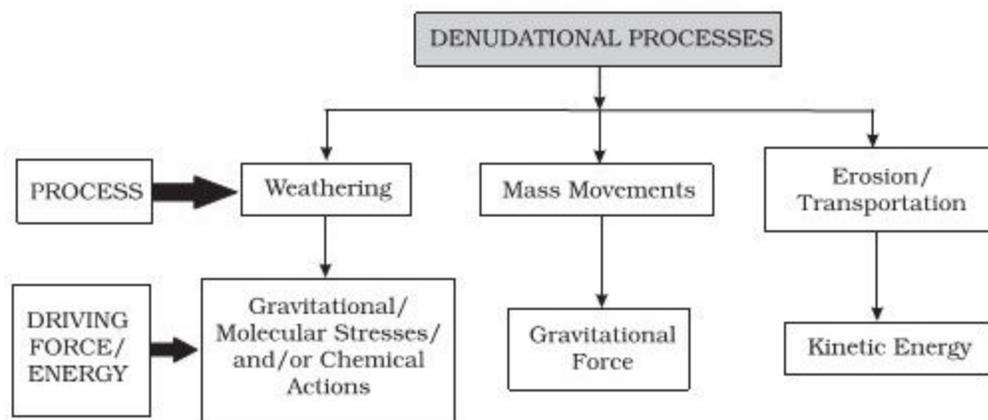
The term geomorphic relates to the form of the landscape and other natural features of the earth's surface. The forces causing physical and chemical changes on earth's surface are known as **geomorphic processes**. All changes take place under the influence of certain forces working continuously within the earth as well as over the surface of the earth.

### Body

The forces working over the earth's surface are known as **exogenic forces**, while those working within the earth's surface are called **endogenic forces**. They are further classified as per the diagram below:



- **Endogenic movements:** The energy emanating from **within the earth** is the main force behind endogenic geomorphic processes. The earth movements are mainly of two types: **diastrophism and sudden movements**.
  - **Diastrophism:** All processes that move, elevate or build up portions of the earth's crust come under diastrophism. They include:
    - **Orogenic processes** involving **mountain building** through severe folding and affecting long and narrow belts of the earth's crust. They act **tangentially** to the earth's surface, as in plate tectonics.
      - **Tension produces fissures** (force acting away from a point in two directions)
      - **Compression produces folds** (force acting towards a point)
    - **Epeirogenic processes** involving **uplift** or warping of **large** parts of the earth's **crust**, thus it is a **continental building process**. They act along the earth's radius and thus are also called **radial movements**.
      - When direction of movements is **towards**, it is **subsidence**.
      - When it is **away**, it is **uplift** from the center. For ex: Raised beaches, elevated wave-cut terraces, sea caves, etc.
  - **Sudden movements:** They cause considerable deformation over a short span of time, and may be of two types: **earthquakes and volcanoes**.
- **Exogenic forces** are a direct result of stress induced in earth materials by various forces that come into existence due to sun's heat. They may face **shear stresses** that break rocks and other earth materials or **molecular stresses** caused due to temperature changes.
  - All the exogenic geomorphic processes are covered under a general term, **denudation**.
  - **Weathering, mass wasting/movements, erosion and transportation** are included in denudation.



### Denudational Processes and their Driving Force

### Conclusion

Thus, the above mentioned geomorphic processes are critical to provide the unique structure of Earth's crust.