MASS WASTING

1. a)

- Amount of precipitation and extent of saturation.
- The gradient of the slope
- Human activities such as mining.
- Occurrence of earthquakes and faulting

b) i) Rock fall

ii) P-cliff face/steep slope/scarp slope

q-Talus/rock debris/boulders

2.

- Due to temperature changes soil particles expand and contract hence shift position down slope.
- Moisture/rain water cause soil to become wet and compact. On drying the particles loosen and shift position down slope.
- Moisture acts as lubricant to soil particles causing their movement down slope.
- Removal of soil on the downhill side makes the rest of soil to shift down slope.
- Human activities/action of borrowing animals may cause the removal of soil on lower part of slope. This triggers soil particles on the upper part of the slope to shift down slope.
- Freezing of soil water expands the space between soil particles. Once water thaws particles fall by gravity shifting position down slope.
- External forces e.g moving a trigger effect which causes downwards movement of soil particles.

3.

- Soil creep pushes posts and fences from their original positions
- Displacement of soil particles down slope leaving steep upper slopes bare
- Burry roads and railways making repair expensive
- Causes slope retreat
- Leads to formation of terrace
- Leads to formation of terrace
- Leads to formation of deep fertile soils down slope which favours agriculture

4. **Mass wasting:**

   This is the down slope movement of weathered materials under the influence of gravity.

   Mass movement:

   This is the down slope movement of weathered materials after lubrication by water.

5. **Soil creep:**

   Movement of fine soil down a gentle slope. It is the slowest movement and quite hard to notice.

   Talus creep:

   Slow movement of angular waste of rock of various sizes down a cliff, hill, scarp and mountain side.

   Solifluction: gravitational flow of surface materials saturated with water.

6.

- Very steep slope these accelerate the rate of movement.
- Very high rainfall which makes the materials to be extremely fluid and the ground to be generally unstable.

- Tectonic movement such as earthquakes and faulting.
- Human activities e.g mining or removal of soils at the base of slopes making the upper layers unstable.

7. **Evidence of soil creep includes**:

- Joint blocks of distinctive rocks types are dislodged from the outcrop
- Edges of strata seem to bend in the down hill direction.
- Fences posts and telephone poles lean downwards and even shift measurably out of line.
- Retaining walls of road cuts lead and break outward under pressure of soil creep from above.
- Accumulation of deep soil at the base of slopes while the upper slopes are left bare.
- Bare and exposed steep upper slopes due to soil displacement
- Slope retreat
- Bent tree trucks.