Q: Name the four types of mountains based on their mode of formation , and also describe briefly

A: The four main types of mountains, classified by their formation, are:

1. **Fold Mountains:** These are formed by the collision of two tectonic plates. The immense pressure causes the Earth's crust to buckle and fold, creating upward-arching mountains. The Himalayas and the Alps are classic examples of fold mountains. They often feature long, parallel ranges and valleys.

2. **Fault-Block Mountains:** These mountains form when large blocks of the Earth's crust are uplifted or dropped down along faults (fractures in the Earth's crust). The Sierra Nevada mountains in California are a prime example. They are characterized by steep, straight slopes and relatively flat tops.

3. **Dome Mountains:** These are formed by the upward movement of magma beneath the Earth's surface. The magma doesn't actually erupt, but the pressure pushes the overlying rock layers upward, creating a dome-like structure. Black Hills of South Dakota are an example. Erosion then sculpts the dome, revealing the underlying rock layers.

4. **Volcanic Mountains:** These are created by the accumulation of lava and volcanic ash from volcanic eruptions. Mount Fuji in Japan and Mount Rainier in the US are examples. They are characterized by a central vent or crater and often have steep slopes.

Q: any three economic benefits of mountains . (4 + 6) = 10

A: Three economic benefits of mountains are:

1. **Tourism and Recreation:** Mountains offer stunning scenery, opportunities for hiking, skiing, climbing, and other outdoor activities. This attracts tourists, generating revenue through accommodation, transportation, equipment rentals, and related services. This supports local economies and creates jobs.

2. **Hydropower Generation:** Mountainous regions often have abundant water resources, making them ideal locations for hydroelectric power plants. This generates clean energy, reducing reliance on fossil fuels and providing a valuable energy source for the region and potentially for export.

3. **Mineral and Timber Resources:** Mountains frequently contain valuable mineral deposits (e.g., gold, silver, copper) and timber resources. Extraction and processing of these resources create jobs, generate revenue through exports, and contribute to national GDP. (Note: this benefit needs to be carefully balanced against environmental concerns).

Q: Describe briefly five major characteristic of traditional Agriculture in India . (10x1) = 10

A: 1. **Low Productivity:** Traditional Indian agriculture relies heavily on manual labor and limited use of modern inputs like fertilizers and high-yielding seeds, resulting in relatively low yields per unit area.

2. **Dependence on Monsoon:** A significant portion of Indian agriculture is rain-fed, making crop production highly vulnerable to the vagaries of the monsoon season and leading to unpredictable harvests.

3. **Small and Fragmented Land Holdings:** A large number of farmers own small and scattered land parcels, hindering the adoption of modern farming techniques and economies of scale.

4. **Use of Traditional Seeds and Practices:** Farmers often rely on traditional, locally adapted seeds and farming practices passed down through generations, which may not be as efficient as modern techniques.

5. **Limited Access to Credit and Markets:** Many farmers lack access to adequate credit and efficient market linkages, hindering investment in improved technology and fair pricing for their produce.

Q: Distinguish between land breeze and sea breeze . Give five distinctive features of each . (10x1) = 10

A: **Land Breeze:**

1. **Direction:** Blows from land towards the sea.
2. **Time of occurrence:** Occurs during night and early morning.
3. **Cause:** Land cools down faster than the sea at night, creating a higher pressure area over land. Air flows from high pressure (land) to low pressure (sea).
4. **Temperature:** Relatively cooler and drier.
5. **Speed:** Generally weaker than sea breezes.

Sea Breeze:

1. **Direction:** Blows from sea towards the land.

2. **Time of occurrence:** Occurs during the day.

3. **Cause:** Land heats up faster than the sea during the day, creating a lower pressure area over land. Air flows from high pressure (sea) to low pressure (land).

4. **Temperature:** Relatively warmer and more humid.

5. **Speed:** Generally stronger than land breezes.