Geography · GS - I

How are the fjords formed? Why do they constitute some of the most picturesque areas of the world?

EXAM YEAR	PAPER	SUBJECT
2023	GS - I	Geography

MARKS	WORD LIMIT
10	~150 words

Answer Hint

Explain glacial erosion, U-shaped valleys, over-deepening and subsequent marine inundation; connect fjord landscapes with steep cliffs, waterfalls, deep waters, forests and distinctive climatic settings; illustrate the interaction of glacial and marine processes.

Model Answer

Introduction

Fjords are long, narrow and deep coastal inlets surrounded by steep mountains. They are characteristic of regions such as Norway, Greenland, New Zealand and parts of Canada and represent the interaction of **glacial erosion and marine processes**.

Body

Formation of Fjords

During glacial periods, valley glaciers moved through pre-existing river valleys. Their enormous erosive power widened and deepened these valleys, transforming them into **U-shaped troughs** with steep sides.

Glacial erosion often produced valleys extending below present sea level. After the glaciers retreated and global sea levels rose, seawater entered these deepened valleys, creating fjords.

Why They Are Picturesque

Fjords possess a distinctive combination of:

- steep mountain cliffs rising directly from the sea;
- deep blue or green waters;
- cascading waterfalls;
- snow-covered peaks and glaciers;
- forests and diverse vegetation;
- dramatic contrasts between land and water.

The combination of vertical relief, water and glacial landscapes creates exceptional scenic diversity.

Fjords also support tourism, fisheries and distinctive ecosystems, although fragile environments require sustainable management.

Conclusion

Fjords are therefore striking examples of **glacial geomorphology interacting with marine processes**. Their dramatic landscapes demonstrate how long-term geological and climatic processes can create some of Earth's most spectacular environments.

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