Dr. Manisha Kumari
Assistant Professor
Deptt. of Geography
S.B. College, Ara

B.A Part-I Paper-I (4)

JUNE '17
Date - 06/07/20

TUESDAY 13

Physical Geography

* Coastal Landforms (continue)

(ii) **Hydraulic Action** :→ In hydraulic action their forward surge, waves splashing against the coast may enter joints and crevices in the rocks. The air trapped inside is immediately compressed.
→ When the waves retreated, the compressed air expands with explosive violence. Such repeated action causes enlargements of the cracks and rock fragments are prised apart.

(iii) **Attrition** :→ It occurs when waves cause loose pieces of rock debris such as boulders, pebbles, shingle and fine sand, to collide with each other.
→ Under this process, the materials are broken down into finer, smaller and rounder particles which are largely responsible for the fine sand that forms the beaches.

(iv) **Solvent Action** :→ This process refers to chemical erosion of rocks.
→ This process is limited to limestone coasts. On limestone coasts, the solvent action of seawater on calcium carbonate sets up chemical changes in the rocks and ~~dist~~ disintegration takes place.

I'd rather give my life than be afraid to give it. — London Baines Johnson

Types of Coasts

→ Other than the action of waves, the coastal landforms depend upon the configuration of land and sea floor and whether the coast is advancing (emerging) seaward or retreating (submerging) landward.

→ As we know that there are different types of coastlines based on a great variety of coastal features. However, it is important to discuss, only two types of coasts (assuming sea level to be constant) to explain the concept of evolution of coastal landforms.

1.) Submerged coasts (high, rocky coasts)

2.) Emerged coasts (low, smooth and gently sloping sedimentary coasts).

SUNDAY 02

* Sea waves aided by winds, currents, tides and storms carry on the erosional and depositional processes.

→ The erosive work of the sea depends upon size and strength of waves, slope, height of the shore between low

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and high tides, shape of the coast, composition of rocks, depth of water, human activity etc.

* Coastal / Marine Landforms

Erosional landforms

(1) Chasms
(2) Wave-Cut-Platform
(3) Sea Cliff
(4) Sea Caves
(5) Sea Arches
(6) Stacks / Skarries / Chimney Rock
(7) Hanging Valleys
(8) Blow Holes or Spouting Horns
(9) Plane of Marine Erosion / Peneplain

Depositional landforms

(1) Beach
(2) Bar
(3) Barrier
(4) Spit and Hook
(5) Tombolos
(6) Dunes