ICSE Geography Class 9 Syllabus

There is one paper of two hours duration carrying 80 marks and Internal Assessment of 20 marks. The question paper consists of Part I and Part II.

Part I (compulsory) consists of two questions. Question 1 consists of short answer questions from the entire syllabus and Question 2 consists of a question based on Map. You are expected to answer all questions.

Part II. You are required to choose any five questions.

Principles of Geography

1. Our World

(i) **Earth as a planet** – shape, size and its uniqueness in the solar system. Shape of the earth – proofs from the earliest days till today. Size of the earth in proportion to the other planets and the unique position of the earth. Measurements of the earth. Earth as the home of humankind and the conditions that exist here.

(ii) **Geographic grid** - Latitudes and longitudes; locating places on the Earth; longitude and time; local and standard time; Great Circle routes and International dateline. (a) Concept of latitudes: main latitudes, the location with degrees, parallels of latitude and their uses. (b) Concept of longitudes - Prime Meridian, time(local, standard and time zones, GMT and International Date Line (IDL). Eastern and Western hemisphere. (c) Using latitudes and longitudes to find locations. Uses of the Great Circle.

(iii) **Rotation of the earth** and the alternation of day and night; Revolution of the earth and seasonal changes; Inclination of the earth's axis and its significance. Movements of the earth and their effects: (a) Rotation – direction, speed, occurrence of day and night, effect of the inclination of the axis on the duration of day and night in summer and winter in both hemispheres. (b) Revolution of the earth, and its effects seasons in low and high latitudes. Equinoxes and solstices.

2. Structure of the Earth and Internal Processes

(i) **Earth's Structure Core, mantle, crust** - their structure i.e. internal composition, thickness, pressure, temperature, density. Forces originating in the interior of the earth – movements due to temperature and pressure in the interior of the earth.

(ii) **Landforms of the earth** – mountains, plateaus and plains. Types of mountains, types of plateaus, types of plains - structural, erosional, depositional. Examples from the world and India. World map showing the distribution of these features as listed.

(iii) **Rocks** - difference between minerals and rocks, types of rocks: igneous, sedimentary, metamorphic, their characteristics and formation; rock cycle. Self-explanatory.

(iv) **Volcanoes** - causes and distribution Types of Volcanoes – central and fissure, shield volcanoes, central type (cone) formation and structure. Intrusive (dykes, sill, batholiths) and extrusive (dome, basic lava shield). Phenomena like hot springs, geysers. Important volcanic zones of the world.

(v) **Earthquakes** – causes, effects and their distribution. Causes, measurement, effects: destructive (e.g. Tsunamis) and constructive. Map of earthquake zones of the world.

(vi) **Folding and faulting** – causes, effects and associated landforms Vertical and horizontal movements and associated features of folding and faulting; synclines and anticlines, fold mountain, rift valley and horsts (block mountains), diagrams of the mountain formations.

3. Weathering

Meaning and effects of weathering, types of weathering with examples.

Weathering, mass wasting, mechanical weathering of rocks – disintegration (granular, exfoliation and frost action); chemical weathering – decomposition, oxidation, carbonation, hydration, solution and biological weathering – (man, plants and animals).

4. Hydrosphere

(i) **Importance of oceans**. Distribution of land and water; features like isthmus, gulf, bay, strait, island. Earth - the watery planet, features like isthmus, gulf, bay, strait, islands; map showing the oceans and seas, water bodies and associated features as listed in the World Map.

(ii) **Movement of ocean waters, tides** - formation, properties and patterns of tides. Currents – their circulation pattern and effects. (Specifically Gulf Stream, North Atlantic Drift, Labrador Current, Kuro Shio and Oya Shio.) Factors that cause tides, nature of tides and periodicity, neap and spring tides. Circulation pattern and effect of currents on climate.

5. Atmosphere

(i) **Composition and structure** of the atmosphere. Diagrammatic representation of atmospheric layers; as Troposphere, Stratosphere, Ionosphere and Exosphere; ozone in stratosphere, its depletion. Global warming and its effects.

(ii) **Insolation** – heat balance, heat zones. Heat balance, heat budget; heat zones of the earth, factors affecting temperature like differential heating and cooling of land and water, latitude, altitude, distance from the sea and slope of the land.

(iii) **Pressure belts and types of wind**. Pressure belts, factors affecting direction and velocity of wind – pressure gradient, Coriolis effect, Permanent winds – trades, Westerlies and Polar Easterlies;– periodic winds - land and sea breezes, monsoons, local winds, variable winds - cyclones, anticyclones and jet streams.

(iv) **Precipitation, types and causes**. Humidity - relative and absolute process of condensation and precipitation; forms of precipitation - rain, dew, frost, snow, hail, mist, fog and smog. Types of rainfall – relief/orographic, convectional, cyclonic/ frontal with examples from the different parts of the world. Distribution of average annual rainfall; areas of high, low and moderate rainfall in the world.

6. Pollution

(a) **Types of pollution** - air, water (fresh and marine), soil, radiation and noise. Self-explanatory

(b) **Sources of pollution** and major pollutants; oil spills. Air: vehicular, industrial, burning garbage, brick kilns, etc. Water: household detergents, sewage, industrial waste, offshore oil drilling, thermal pollution. Soil: industrial waste, urban-commercial and domestic waste, chemical fertilizers, bio medical waste and pesticides. Radiation: X- rays; radioactive fallout from nuclear plants.

(c) **Effects of pollution** on - environment, human health and other organisms. Bhopal Gas Tragedy; Chernobyl Disaster.

(d) **Abatement of pollution**. Air: setting standards and implementing them, using technical devices to reduce pollution. Water: proper collection and disposal of domestic sewage, treatment of industrial waste to yield safe effluents, etc. Nuclear: working on safe disposal of waste. Safety measures to be strictly enforced.

7. Natural regions of the World

Location, area climate, natural vegetation and human adaptation (only crops grown.)

Equatorial region, tropical grass land, Tropical Desert, Tropical Monsoon, Mediterranean, China type, Cool Temperate West coast, temperate grass land, temperate desert, taiga and tundra.

8. Map Work

A question will be set to locate and label the following information on an outline map of the world.

1. The major **natural regions** of the world - Equatorial, Tropical Monsoon, Tropical Desert, Mediterranean type, Cool Temperate Continental (Steppe, Prairie), Cool Temperate Oceanic (China type).

2. The **oceans, seas, gulfs** - all major oceans and seas of the world - Caribbean Sea, North Sea, Black Sea, Caspian sea, Baltic Sea, Mediterranean Sea, Gulf of Alaska, Hudson Bay, Gulf of St. Lawrence, Gulf of Mexico, Gulf of Guinea, Strait of Magellan, Strait of Gibraltar, Strait of Malacca and Isthmus of Suez.

3. **Rivers** – Fraser, St. Lawrence, Missouri and Mississippi, Colorado, Amazon, Parana, Paraguay, Nile, Zaire, Niger, Orange, Rhine, Seine, Volga, Danube, Murray, Darling, Hwang Ho, Ganga, Godavari, Mekong, Irrawaddy, Tigris, Euphrates.

4. **Mountains** – Rockies, Andes, Appalachian, Alps, Himalayas, Pyrenees, Scandinavian Mountains, Carpathians, Ethiopian Highlands, Drakensburg, Khinghan, Zagros, Tien Shan, Arakan Yoma, Central Japanese Alps.

5. **Plateaus** – Canadian Shield, Labrador Plateau, Tibetan plateau, Brazilian highlands, African Rift Valley, Iranian Plateau.