

# Cluster University Srinagar

## ENTRANCE TEST SYLLABUS FOR ADMISSION TO 5-YEAR INTEGRATED, 3-YEAR HONOR'S & PROFESSIONAL PROGRAMMES SESSION 2019

**SYLLABUS CLASS XI**

**Code : 215**

### **GEOGRAPHY**

**Maximum Marks: 100**  
**Theory: 70 marks**

**Time: 3 hours**  
**Practical: 30 marks**

#### **A. Fundamentals of Physical Geography**

##### **Unit I: Geography as a Discipline**

**5 marks**

- ♦ Geography as an integrating discipline, as a science of spatial attributes ;
- ♦ Branches of geography, importance of physical geography

##### **Unit II: The Earth**

**5 marks**

- ♦ Origin and evolution of the earth; interior of the earth Wegener's continental drift theory and plate tectonics; Earthquakes and volcanoes;

##### **Unit III: Land Forms**

**6 marks**

- ♦ Rocks and minerals –major types of rocks and their characteristics;
- ♦ Land forms and their evolution
- ♦ Geomorphic processes-weathering, mass wasting, erosion and deposition; soils – formation

##### **Unit IV: Climate**

**11 marks**

- ♦ Atmosphere- compositions and structure, elements of weather and climate;
- ♦ Insolation-angle of incidence and distribution; heat budget of the earth – heating and cooling of atmosphere (conduction, convection, terrestrial radiation, advection): temperature – factors controlling temperature; distribution of temperature-horizontal and vertical; inversion of temperature

- ♦ Pressure- pressure belts; winds-planetary seasonal and local, air masses and fronts; tropical and extra tropical cyclones;
- ♦ Precipitation –evaporation ; condensation –dew, frost, fog, mist and cloud; rainfall –types and world distribution ;
- ♦ World climates–classification (Koeppen), greenhouse effect, global warming and climatic changes.

**Unit V : Water (Oceans)**

**4 Marks**

- ♦ Hydrological Cycle ;
- ♦ Oceans – submarine relief; distribution of temperature and salinity; movements of ocean water waves, tides and currents.

**Unit VI : Life on the Earth**

**4 Marks**

- ♦ Biosphere - importance of plants and other organisms; biodiversity and conservation; ecosystems, bio-geochemical cycle, and ecological balance.

**B. India–Physical Environment**

**Unit VII : Introduction**

**5 Marks**

- ♦ Location – space relations and India's place in the world.

**Unit VIII : Physiography**

**7 Marks**

- ♦ Structure and Relief;
- ♦ Drainage systems: concept of water sheds; the Himalayan and the Peninsular ;
- ♦ Physiographic divisions.



**Unit IX : Climate, Vegetation and Soil**

**14 Marks**

- ♦ Weather and Climate – spatial and temporal distribution of temperature, pressure, winds and rainfall; Indian monsoons: mechanism, onset and variability – spatial and temporal; climatic types;
- ♦ Natural vegetation –forest types and distribution; wild life; conservation; biosphere reserves ;
- ♦ Soils – major types (ICAR's classification) and their distribution, soil degradation and conservation.

**Unit X : Natural Hazards and Disasters: Causes, Consequences and Management (One case study to be introduced for each topic)**

**9 Marks**

- ♦ Floods and droughts
- ♦ Earthquakes and Tsunami
- ♦ Cyclones
- ♦ Landslides

**C Practical Work**

**Unit I: Fundamentals of Maps**

- ♦ Maps – types ; scales –types ; construction of linear scales, measuring distance finding direction and use of symbols;
- ♦ Latitude, Longitude and time ;
- ♦ Map projection – typology, construction and properties of conical with one standard parallel and Mercator's projection.

**Unit II: Topographic and Weather Maps**

**30 Marks**

- ♦ Study of topographic maps (1:50,000 or 1:25,000, Survey of India Maps) : contour cross section and identification of landforms – slopes hills, valleys, waterfalls, cliff; distribution of settlements;

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**Practicals: 30 Marks**

## **A. Fundamentals of Human Geography**

**Marks 35**

### **Unit I: Human Geography: Nature and Scope**

**Marks 03**

#### **Unit II: People**

**Marks 05**

- Population of the world – distribution, density and growth;
- Population change-spatial patterns and structure; determinants of population change;
- Age-sex ratio; rural-urban composition;
- Human development – concept; selected indicators, international comparisons.

#### **Unit III: Human Activities**

**Marks 10**

- Primary activities – concept and changing trends; gathering, pastoral, mining, subsistence agriculture, modern agriculture; people engaged in agriculture and allied activities – some examples from selected countries;
- Secondary activities – concept; manufacturing: agro-processing, household, small scale, large scale; people engaged in secondary activities – some examples from selected countries;
- Tertiary activities – concept; trade, transport and communication; services; people engaged in tertiary activities – some examples from selected countries;
- Quaternary activities – concept; knowledge based industries; people engaged in quaternary activities – some examples from selected countries.

#### **Unit IV: Transport, Communication and Trade**

**Marks 10**

- Land transport – roads, railways – rail network; trans-continental railways;
- Water transport – inland waterways; major ocean routes;
- Air transport – Intercontinental air routes;
- Oil and gas pipelines;
- Satellite communication and cyber space;
- International trade – Basis and changing patterns; ports as gateways of international trade, role of WTO in International trade.

#### **Unit V: Human Settlements**

**Marks 05**

- Settlement types – rural and urban; morphology of cities (case study); distribution of mega cities; problems of human settlements in developing countries.



**Unit VI: Map work on identification of features based on above units on the outline Political map of world.** **Marks 02**

**B. India: People and Economy** **Marks 35**

**Unit VII: People** **Marks 05**

- Population – distribution, density and growth; composition of population: linguistic, sex and religious; rural-urban population change through time – regional variations; occupations.
- Migration: international, national – causes and consequences;
- Human development – selected indicators and regional patterns;
- Population, environment and development.

**Unit VIII: Human Settlements** **Marks 04**

- Rural settlements – types and distribution;
- Urban settlements – types, distribution and functional classification.

**Unit IX: Resources and Development** **Marks 12**

- Land resources – general land use; agricultural land use – major crops; agricultural development and problems, common property resources;
- Water resources – availability and utilization – irrigation, domestic, industrial and other uses; scarcity of water and conservation methods – rain water harvesting and watershed management (one case study related with participatory watershed management to be introduced);
- Mineral and energy resources – metallic and non-metallic minerals and their distribution; conventional and non-conventional energy sources;
- Industries – types and distribution; industrial location and clustering; changing pattern of selected industries – iron and steel, cotton textiles, sugar, petrochemicals, and knowledge based industries; impact of liberalization, privatization and globalization on industrial location;
- Planning in India – target area planning (case study); idea of sustainable development (case study).

**Unit X: Transport, Communication and International Trade** **Marks 07**

- Transport and communication — roads, railways, waterways and airways; oil and gas pipelines; national electric grids; communication networkings – radio, television, satellite and internet;
- International trade — changing pattern of India's foreign trade; seaports and their hinterland and airports.

**Unit XI: Geographical Perspective on Selected Issues and Problems** **Marks 04**  
**(One case study to be introduced for each topic)**

- Environmental pollution; urban-waste disposal;

- Urbanization-rural-urban migration; problem of slums;
- Land Degradation.

**Unit XII: Map work on locating and labeling of features based on above units on the outline Political map of world. Marks 03**

**C. Practical Work Marks 30**

**Internal assessment: 10 marks**

**External assessment:20 marks**

**Unit I: Processing of Data and Thematic Mapping Marks 10**

- Sources of data;
- Tabulating and processing of data; calculation of averages, measures of central tendency, deviation and rank correlation;
- Representation of data – construction of diagrams: bars, circles and flowchart; thematic maps; construction of dot; choropleth and isopleth maps.
- Use of computers in data processing and mapping.

**Unit II: Field Study Marks 07**

Field visit and study: map orientation, observation and preparation of sketch; survey on any one of the local concerns; pollution, ground water changes, land use and land- use changes, poverty, energy issues, soil degradation, impact of floods and drought, catchment area of school, Market survey and Household survey (any one topic of local concern may be taken up for the study; observation and questionnaire survey may be adopted for the data collection; collected data may be tabulated and analysed with diagrams and maps.

**Unit II: Practical Record Book and Viva-voce. Marks 03**