State Selection Board, Govt. of Odisha

**Model Syllabus for Geography**

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**Unit – I :Geomorphology, Biogeography & Soil Geography**

- Origin andInternal Structure of the Earth, Isostasy, Mountain Building
- Continental Drift, Ocean Floor Spreading, PlateTectonics.
- Earthquake,Volcanism:Cause, effect & distribution.
- Rocks and Minerals, Structure (Fold & Fault) and Landforms
- Weathering, Mass Wasting, Cycle of Erosion (Davis, Penck)
- Landforms produced by running water,Groundwater, Wind, Wave & Glacier
- Environment & Ecosystem, Structure & Function of Eco-system
  Food Chain and Food Web, Energy Flow
- Concept of Biome, Classification and World Distribution of Biomes
- Environmental Degradation & Pollution, Man& environment
- Soil forming processes, Soil Profile, Classification & Distribution of Soils.

**Unit – II: Climatology and Oceanography**

- Composition and Structure of atmosphere, Elements and Factors of Climate
- Insolation & Temperature, vertical & horizontal distribution of Temperature
- Pressure Belts, Planetary, Periodic and Local winds, Upper Air Circulation, Jet Stream
- Hydrological Cycle, Humidity, Forms of Condensation
- Types of Precipitation, Formation of Precipitation
- Air Mass: Types, Origin, Classification and Modification
- Atmospheric disturbances, Tropical and temperate Cyclones
- Classification of World Climate (Koppen and Thornthwaite)
- Global Warming, Ozone Depletion and Climate Change
- Bottom relief of Oceans: Pacific, Atlantic and Indian
- Temperature and Salinity of the Ocean Water
- Waves &Tides, Currents of Pacific, Atlantic and Indian Ocean
- Coral Reefs: Types and origin, Ocean Deposits.

**Unit – III: Human and Economic Geography**

- Races of Mankind, Cultural Realms of the World
- Population Distribution, Growth, Demographic Structure of Population
- Fertility, Mortality and Migration,Trend of Urbanization
- Evolution of Settlements, Types and Pattern of Rural and UrbanSettlements, Functional Classification of Towns
- Resources: Meaning, Classification, Conservation and Management
- Agriculture: its types, Agricultural location theoryof Von-thunen
- Industrial location theory by Weber and Smith
- Concept of Region, Delimitation of Regions

- Central Place Theory of Christaller
- Regional Planning in India, Micro & Multilevel Planning, Rural Development, Growth Pole & Growth Centre approaches
- Concept of Nation and State, Frontiers, Boundaries & Buffer Zone
- Concept of Heartland and Rimland
- Contribution of Humboldt, Ritter, Ratzel &Vidal dela Blache to Geography

**Unit-IV:Regional Geography of India & Odisha**

- Physiographic Divisions and Relief, River system
- Climate, Climatic regions, Mechanism of Indian Monsoon
- Soils: Types and Distribution
- Natural Vegetation, its Classification and distribution
- Population: Structure and Composition, Population growth, density, distribution
- Settlements: Rural and Urban, Classification of Towns
- Mode of occurrence anddistribution of Iron Ore, Bauxite, Coal and Petroleum
- Non Conventional Sources of Energy: Wind, Solar, Geothermal, Biogas
- Agriculture and its types, Crops and Cropping Pattern, Agricultural Regions
- Location and Distribution of Iron and Steel Industry, Aluminumand Cotton Textile Industry, Industrial Regions
- Transport System: Road, Rail, Air and Water transport.

**Unit - V: Applied Geography**

- Cartography: Cartographic techniques in Geography, Map design& Layout
- Types of Maps, Types of Diagrams: Bars, Circles, Spheres
- Map Scale: RF, Statement and Graphical
- Choropleth, Isopleth, Isochrone Maps, Use of Symbols in Map Making
- Concept of Spheroid & Geoid, Map Projection: Types, Properties, use

-Concept of Geographical Co-ordinates: Latitude,Longitude,Parallels and Meridians,International Date Line, Standard Time & Local Time

- Socio-Economic Survey, Questionnaire, Schedule
- Interpretation of Toposheets, Weather Maps & Geological Maps
- Use of Statistical Methods in Geography: Measures of Central Tendencies,
- Measures of Dispersion, Correlation and Regression
- Geographical Information System: Concept & Components
- Aerial Photography and Remote Sensing techniques inGeography.

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# GEOGRAPHY

## SAMPLE MULTIPLE CHOICE QUESTIONS

1. Who had proposed the term “Isostasy”?
   A. Archdeacon Pratt
   B. Clarence Dutton
   C. George Airy
   D. Pierre Bouguer

2. The boundary between which of the following plates and the Pacific plate is associated with subduction?
   A. The Antarctic plate
   B. The Cocos plate
   C. The Nazca plate
   D. The Philippines plate

3. What type of sedimentary rock is sandstone?
   A. Arenaceous
   B. Argillaceous
   C. Calcareous
   D. Carbonaceous

4. In which type of erosion does the impact of the falling raindrop form a small crater in the soil, ejecting and moving soil particles horizontally on the level ground?
   A. Gully erosion
   B. Reel erosion
   C. Sheet erosion
   D. Splash erosion

5. “A distinct biological community that has formed in response to a shared physical climate in a large area” is known as:
   A. Biome
   B. Ecosystem
   C. Ecotone
   D. Habitat

6. “The mean annual thermal equator is located approximately at $5^{o}$N and not at the equator”. This is mainly due to the effect of:
   A. Atmospheric filter
   B. Cloud cover
   C. Continentality
   D. Latitude

7. ‘Doldrums’ are associated with:
   A. Equatorial trough
   B. Horse latitudes
   C. Polar fronts
   D. Polar Highs

8. Presence of the rows of which of the following types of clouds in the sky is known as ‘Mackerel Sky’?
   A. Altostratus
   B. Cirrocumulus
   C. Cirrus
   D. Stratocumulus

9. Which of the following conditions is contrary to the formation and development of a tropical cyclone?
   A. An area above $6^{o}$ of latitude
   B. An area with strong vertical wind shear
   C. An extensively large tropical ocean with sea surface temperature ≥ $37^{o}$C
   D. A pre-existing low pressure cell or ICD

10. Who among the following has presented a hypothesis different from the other three as regards the formation of coral reefs and atolls?
   A. Daly
   B. Dana
   C. Darwin
   D. Davis

11. To which of the following racial groups do the Eskimos of Greenland and the Yakuts of Siberia belong?

A. Australoid
B. Caucasoid
C. Mongoloid
D. Negroid

12. Which stage of the evolution of the urban centres, according to Lewis Mumford, started with the use of coal as a source of power and the development of iron and steel industry?
    A. Biotechnic stage
    B. Eotechnic stage
    C. Neotechnic stage
    D. Palaeotechnic stage

13. Which of the following concepts is associated with a location theory different from the other three?
    A. Concentric Rings
    B. Isolated State
    C. Least Cost location
    D. Locational Rent

14. Because of whom did the Growth Pole Theory receive a specific geographical and regional importance?
    A. Boudeville
    B. Perroux
    C. Schumpeter
    D. Siebert

15. “The lifestyle of a particular region reflects the economic, social, ideological and psychological identities imprinted on the landscape”. Who conceived this idea?
    A. Alexander von Humboldt
    B. Carl Ritter
    C. Friedrich Ratzel
    D. Paul Vidal de La Blache

16. Which among the following hill blocks in Odisha is of volcanic origin?
    A. The Brahmani-Baitarani water divide

B. The Mahanadi-Brahmani watershed
C. The Pattangi-Chandragiri hills
D. The Simlipal-Meghasani hills

17. Which of the following degraded soils in India is characteristically different from the other three?
A. Kallar
B. Kari
C. Reh
D. User

18. Which type of rural settlement is noticed in the tribal areas of central India, southern and eastern Rajasthan and the Himalayan slopes?
A. Compact
B. Dispersed
C. Hamleted
D. Semi-compact

19. Which of the following is the most prominent oilseed producing agro-climatic region in India?
A. Eastern Coastal Plains and Hills
B. Gujarat Plains and Hills
C. Southern Plateau and Hills
D. Western Plateau and Hills

20. Which among the following steel plants in India does specialise in the production of high quality stainless steel?
A. Durgapur
B. Jamshedpur
C. Salem
D. Vishakhapatnam

21. If the scale of a map is 1 cm equals to 2 km and the same map is reduced by half, then what will be R.F. of the new map?
A. 1: 100,000
B. 1: 200,000

C. 1: 282,800

D. 1: 400,000

22. Which of the following methods is best suitable for choosing class intervals to prepare a choropleth map for an indicator showing normal distribution?

A. Graphic techniques

B. Mean ± one standard deviation

C. Median and quartiles

D. (Range of data) / (desired number of classes)

23. How many parallels of latitude can be drawn on the globe at an interval of 30 minutes?

A. 358

B. 359

C. 360

D. 361

24. Which of the following is a relative measure of dispersion?

A. Coefficient of variation

B. Mean deviation

C. Range of data

D. Standard deviation

25. For which of the following types of air photographs is the area simultaneously photographed by two cameras?

A. Convergent photographs

B. Horizontal photographs

C. Trimetrogon photographs`

D. Vertical photographs

ANSWER KEY

1. (B) Clarence Dutton
2. (D) The Philippines plate
3. (A) Arenaceous
4. (D) Splash erosion
5. (A) Biome
6. (C) Continentality
7. (A) Equatorial trough
8. (B) Cirrocumulus
9. (B) An area with strong vertical wind shear
10. (A) Daly
11. (C) Mongoloid
12. (D) Palaeotechnic stage
13. (C) Least cost location
14. (A) Boudeville
15. (D) Paul Vidal de La Blache
16. (D) The Simlipal-Meghasani hills
17. (B) Kari
18. (B) Dispersed
19. (B) Gujarat Plains and Hills
20. (C) Salem
21. (D) 1:400,000
22. (B) Mean ± One standard deviation
23. (B) 359
24. (A) Coefficient of variation
25. (A) Convergent photographs