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C/18/DDE/MA/MSc/Part-I/GEO/2

2018

DDE

M.A./M.Sc.

Part-I Examination

GEOGRAPHY

PAPER—II

Full Marks : 100

Time : 4 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Write the answer to question of each Group in separate books.

MODULE-3

(Climatology)

[Marks : 50]

Group—A

Answer any two questions : 2×15

1. Give an account of the vertical structure of atmospheric composition. What is hydrostatic equilibrium and why it is important in maintaining atmospheric stability. 9+6

(Turn Over)

2. Illustrate the energy balance of the Earth-Atmospheric system with proper graphics. Briefly discuss the causes for changing energy balance in Earth-Atmospheric system. 10+5
3. Explain the General Circulation Model (GCM) of the Earth's atmosphere with diagram. How does conservative on of angular momentum play role in causing story westerly flow at the surface. 10+5
4. State the precipitation mechanism of warm and cold cloud with proper graphics. Briefly explain the role of air mass in causing varying amount of precipitation. 10+5

Group—B

(Answer any two questions) 2×10

5. What are green house gases ? Why are they important in Global Climate Change ? 10
6. Briefly explain the mechanism of frontal cyclogenesis. Why is upper air circulation important in the formula of cyclonic flow. 6+4
7. What is atmospheric instability ? How is it related to the formulation of squall line ? 3+7

8. How Southern Oscillation Index (SOI) is computed ? Briefly explain the telecommunication between ENSO and precipitation variation over Indian sub-continent. 4+6

MODULE-4

(Environmental Studies)

[Marks : 50]

Group—A

Answer any two questions : 2×15

1. Give the connection of ecosystem hierarchy with proper examples and briefly discuss major biomes. 5+10
2. Briefly discuss the importance of socio-cultural environment for human welfare. State the relationship between physical environment socio-cultural problems. 5+10
3. Identify the factors behind environmental movement. Critically discuss the social significance of Chipko Andolan as an environmental movement. 5+10
4. Differentiate anthropocentric approach from ecocentric approach and state their importance in environmental conservation. What are the salient features of Agenda 21. 5+7+3

Group—B

Answer any *two* questions 2×10

5. Briefly discuss the role of IUCN for the conservation of Nature. What is Red Data Book ? 8+2
 6. Discuss in brief the contribution of Aldo Leopold and Anne Naess as the pathfinder of environmental ethics. 5+5
 7. Differentiate natural ecosystem from man modified ecosystem and state the components and salient characteristics of urban ecosystem as a man-made ecosystem. 3+7
 8. What is meant by Eutropication ? Identify the causes and possible remedial measures against eutropication. 3+7
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