

2010

M.Sc

1st Semester Examination

GEOGRAPHY AND E.M.

PAPER—GEO-103

Full Marks : 40

Time : 2 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.

Write the answers of each Unit in separate books.

Unit—V

(Climatological Processes)

[Marks : 20]

Group—A

1. Answer any one question : 1×8
- (a) Explain the conditions for stability and instability of the atmosphere. 8
- (b) How is global atmospheric circulation instrumental in transferring heat and westerly angular momentum across the latitudes? 8

(Turn Over)

Group—B

2. Answer any two questions : 2×4
- (a) The atmosphere is heated chiefly by reradiation from Earth's surface, rather than directly by solar radiation." — Explain briefly. 4
- (b) Explain the relationship between temperature of a radiating body and the wavelengths it emits. Give examples. 4
- (c) Describe the characteristics of Rossby waves in relation to general circulation of the atmosphere.
- (d) How is La Nina different from El Nino ?

Group—C

3. Answer any two questions : 2×2
- (a) Define 'Bowen Ratio.'
- (b) Why is saturation vapour pressure above ice crystals lower than above super cooled water droplets ?
- (c) How does a gradient wind maintain its circular pathway ?
- (d) Differentiate between 'anacfront' and 'Katafront'.
-

Unit—VI
(Population Geography)

[Marks : 20]

Group—A

1. Answer any *one* question : 1×8
- (a) Explain how different traits of population affect the stages of development.
 - (b) Give an account of evolution and development of the discipline of population geography as a systematic branch of human geography.

Group—B

2. Answer any *two* questions : 2×4
- (a) Discuss the factors affecting fertility.
 - (b) Specify the significance of population equilibrium.
 - (c) Write the role of technology and innovation in changing the limit of carrying capacity over time.
 - (d) Bring out the differential nature of sex ratio in Indian population.

Group—C

3. Answer any two questions : 2×2

- (a) What do you understand by Cohort fertility rate?
 - (b) State the significance of logistic population growth.
 - (c) Distinguish between absolute and relative over population.
 - (d) Specify the importance of exogenetic factors that determine the mortality patterns.
-