

5118 B
M.A. (Final) Geography
Paper - IV (B) : Transportation Geography

Unit - I

- a) Meaning, scope and development of transportation geography.
- b) Factors associated with the development of transport system: historical, technological, physical, economic, political and social.
- c) Spatial interaction: ideas of Edward Ullman; functional approach of M.E. Hurst.
- d) Concepts of distance: point to point distance and distance in a group of points.
- e) Measures of distance: physical, time, economic and perceptual.

Unit - II

- a) The functional region, linkages and nodes, diagrammatic representation of hinterlands and hierarchies.
- b) Transportation and spatial processes: regional specialisation and agglomeration economies.
- c) Cost of overcoming distance: transportation cost, price and rate structure.
- d) Transport costs as factor of production.
- e) An idealised process of transport development.

Unit - III

- a) Graph theoretic concepts.
- b) Networks as models.
- c) Types of connectivity: concept and indices of connectivity.
- d) Measures of nodal accessibility: the network as a matrix; degree of connectivity: direct and indirect connectivity.
- e) Indices of accessibility: accessibility matrix, matrix T, shortest path matrix and valued matrix; sinuosity.

Unit - IV

- a) Spatial patterns of flow.
- b) Gravity model: basic model and modifications.
- c) Gravity model and the traffic and commodity flow.
- d) Allocation model: transportation problem and optimum solution.
- e) Flow in a capacitated network.

Unit - V

- a) Negative impacts of transportation: social, accidents and other impairments.
- b) Economic and environmental aspects of urban transport problems and their control.
- c) Alternative transport system in mega cities.
- d) Transport systems in the developing countries.
- e) Development of the Indian surface transport system.

Suggested Readings:

- Abler, Adams and Gould, Spatial Organisation: The Geographer's View of the World, Prentice Hall, New York.
- Buchannan, C.D., Traffic in Towns, Buchannan Report, HMSO, London. Hagget, P. et al, Locational Analysis in Human Geography, Edward Arnold, London, 1977.
- Haggett, P. and R.J. Chorley, Network Analysis in Geography, Arnold, London, 1968.
- Hay, A. Transport Economy, Macmillan, London, 1973.
- Hoyle, B.S. (ed.) Transport and Development, Macmillan, London, 1973.
- Hoyle, B.S. and R. Knowles, Modern Transport Geography, Wiley Europe.
- Hurst, M.E.E., Transportation Geography: Comments and Readings, McGraw Hill, New York, 1974.
- Kansky, K.J., Structure of Transportation Network, Research Paper No. 48, Department of Geography, University of Chicago.
- Knowles, R. and J. Wareing, Economic and Social Geography, Heinemann.
- Lowe, J.C. and S Moriyadas, The Geography of Movement, Houghton Mifflin Co., Boston.
- Munby, D., Transport, Penguin.
- Patankar, P.G., Urban Transport in Distress, Central Institute of Road Transport, Pune.
- Robinson, H. and C.G. Bamford, Geography of Transportation, McDonald and Evans, London, 1978.
- Taaffe, E.J. and et al, Geography, Prentice Hall Inc.
- सिंह, के.एन., परिवहन भूगोल, ज्ञानोदय प्रकाशन, गोरखपुर