
SEMESTER VIII

I. MAJOR COURSE- MJ 20: GEOMORPHOLOGY

Marks: 25 (5 Attd. + 20 SIE: 1Hr) + 75 (ESE: 3Hrs) = 100

Pass Marks: Th (SIE + ESE) = 40

(Credits: Theory-04) **60 Hours**

Course Objective:

The Learning objective of this course are as follows-

1. To familiarise students about geomorphic environment, landform development
2. To make student learn and apply geomorphic ideas for water management and environmental degradation

Course Learning Outcomes:

After the completion of course, the students will have ability to:

1. Learn the geomorphic/ physical environment of the area. It will help in the understanding of geomorphic analysis of landform development
2. Have sound knowledge of geomorphic features which will enable the students in application of geomorphic ideas for water management and environmental degradation
3. It will help the understanding of natural hazard management and various geomorphic applicability

Course Contents-

Unit 1- Defining the field, nature and scope of geomorphology, fundamental concepts, landform evolution, Slope Development and theory

Unit 2- Earth movements- epierogenic, orogenic and symatogenic, climatogenic, plate tectonic and anthropogenic evolution of landforms

Unit 3- Process of landform evolution – concept of gradation, drainage system analysis, morphometric analysis, drainage basin, and channel morphology,

Unit 4- Regional geomorphology of Chotanagpur plateau, Palamu upland, Rajmahal upland, Kolhan Region and denudation chronology

Unit 5- Applied Geomorphology- application of geomorphology to urbanization, agriculture, water resource management, watershed planning and development forestry, regional planning and development, Geomorphic hazard

ReferenceBooks:

1. Ahmad, E (1985) Geomorphology, Kalyani Publishers, New Delhi
 2. Bloom, A. L., (2003): Geomorphology: A Systematic Analysis of Late Cenozoic Landforms, Prentice-Hall of India, New Delhi.
 3. Christopherson, R. W. and Birkeland, G. H., (2012) Geosystems: An Introduction to Physical Geography (8th edition), Pearson Education, New Jersey.
 4. Das Gupta, A and Kapoor, A.N., (2001) Principles of Physical Geography, S.C. Chand & Company Ltd. New Delhi
 5. Dayal, P., (1996) A Text book of Geomorphology. Shukla Book Depot, Patna.
 6. Huggett, R.J. (2007) Fundamentals of Geomorphology, Routledge, New York.
 7. Kale, V. S. and Gupta A., (2001): Introduction to Geomorphology, Orient Longman, Hyderabad.
 8. Khullar, D.R., (2012) Physical Geography, Kalyani Publishers, New Delhi.
 9. Singh Savindra(2015): Bhuakriti vigyan ka Swarup, Prayag Pustak Bhawan, Allahabad
 10. Strahler, A. H. and Strahler, A N., (2001): Modern Physical Geography (4/E), John Wiley and Sons, Inc., New York.
 11. Summerfield M. A. (2013): Global Geomorphology, Routledge, New York
 12. Thornbury, W. D., (2004): Principles of Geomorphology, Wiley, New York.
 13. Shukla, J (2016) Geomorphology, Disha International Publishing House, Delhi
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