

II. CORE COURSE [CCGEO102]:

(Credits: Theory-04, Tutorial-01)

Marks: 30 (MSE: 20Th. 1Hr + 5Attd. + 5Assign.) + 70 (ESE: 3Hrs)=100**Pass Marks (MSE:17 + ESE:28)=45*****Instruction to Question Setter:******Mid Semester Examination (MSE):***

There will be **two** groups of questions in written examinations of 20 marks. **Group A is compulsory** and will contain five questions of **very short answer type** consisting of 1 mark each. **Group B will contain descriptive type five** questions of five marks each, out of which any three are to be answered.

End Semester Examination (ESE):

There will be **two** groups of questions. **Group A is compulsory** and will contain two questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No.2 will be short answer type** of 5 marks. **Group B will contain descriptive type six** questions of fifteen marks each, out of which any four are to be answered.

Note: There may be subdivisions in each question asked in Theory Examinations

The Mid Semester Examination shall have three components. (a) Two Semester Internal Assessment Test (SIA) of 20 Marks each, (b) Class Attendance Score (CAS) of 5 marks and (c) Class Performance Score (CPS) of 5 marks. "**Better of Two**" shall be applicable for computation of marks for SIA.

(Attendance Upto 75%, 1 mark; 75 < Attd. < 80, 2 marks; 80 < Attd. < 85, 3 marks; 85 < Attd. < 90, 4 marks; 90 < Attd, 5 marks).

GEOMORPHOLOGY**Theory: 60 Hours; Tutorial: 15 Hours****Unit 1:**

Geomorphology: Definition and Scope of Geomorphology, Fundamental concepts – Geological structure and land forms, Uniformitarianism, Multi cyclic and Poly cyclic evolution of landforms, Theories of landscape development

Unit 2:

Earth Movements: Orogenic, Epirogenic Movements and resultant landforms, Forces of instability, Isostasy, Plate Tectonics, Seismicity, Volcanicity, Orogenic structures with reference to the evolution of the Himalayas.

Unit 3:

Exogenic Processes: Concept of gradation, Agents and processes of gradation, Process of Weathering and Mass Wasting, Landforms produced by – Drainage system and Drainage patterns, Slope evolution.

Unit 4:

Geomorphic Processes: Dynamics of Aeolian, Marine, Glacial, Coastal processes and resulting landforms, Recent Trends in Geomorphology, Applied geomorphology: Urban geomorphology, Geomorphic hazards.

References:

- Ahmed E. (1985) Geomorphology, Kalyani Publishers, New Delhi.
- Strahler A.N. (1968) The Earth Sciences, Harper & Row Intl. Edn, New York
- Thornberry W.D. (1969) Principles of Geomorphology 2nd Edition, Wiley Intl. Edn. & Wiley Eastern Reprints 1984.
- Verstappen H. (1983) Applied Geomorphology, Geomorphological Surveys for Environmental Development, Elsevier, Amsterdam
- Woodridge S.W and R.S. Morgan (1991) An Outline of Geomorphology, The Physical Basis of Geography, Orient Longman, Kolkata.
- Dayal P. (1995) A Text Book of Geomorphology 2nd Edition., Sukla Book/Dept. Patna.
- Homes A. (1965) Principles of Physical Geology, 3rd Edition, ELBSS Edn.
- Goudie Anrew et.al. (1981) Geomorphological Techniques, George Allen & Unwin, London.
- Bloom A.L. (1978) Geomorphology: A Systematic Analysis of Late Cenozoic Landforms Prentice – Hall of India, New Delhi.
- Singh, Savindra (2001): Bhuakriti Vigya, Pravalika Publications, Allahabad.
- Singh, Savindra (2015): Bhautik Bhugol, Pravalika Publications, Allahabad.
- Worcester P.G. (1965), A Text Book of Geomorphology, Can North and 2nd Edition, East-West Edn. N Delhi.
- J.A. Steers: Unstable Earth
- Tiwari, Ram Kumar (2016) Bhoutik Bhugol, Hindi Granth Academy, Jaipur, (Raj.)