

Government College for Women, Bawani Khera (Bhiwani)
Department of Geography
Academic year: 2022-23

Paper Title: Physical Geography (20 UGEO 301)

Marks allotted: 75

Internal assessment: 15

External examination: 60

Objectives of Teaching the Paper:

To educate students in the contents and methods of physical geography and to make them understand interrelationship of human and natural processes and the nature of geography as an academic and professional discipline.

To make students understand the fundamental concepts of Geomorphology, Climatology and Oceanography.

Mode of Transaction for the Paper:

- Discussions
- Lectures and class assignments based on students' geographical discoveries through analyses of appropriate documents and readings.
- Observation of physical landscape which surrounds us and we encounter in our day-to-day activities.

Readings:

Essential Readings:

1. Hussain, M., (2007). *Fundamentals of Physical Geography*. Jaipur: Rawat Publications
2. King, C. A. M., (1975). *Introduction to Physical and Biological Oceanography*. London: Edward Arnold.
3. Lal, D. S., (2020). *Climatology*. Allahabad: Sharda Pustak Bhawan.
4. Lal, D. S., (2003). *Oceanography*. Allahabad: Sharda Pustak Bhawan.

5. Sharma, R. C., & Vatal, M., (2016). *Oceanography for Geographers*. Allahabad: Chaitanya.
6. Singh, S., (2021). *Geomorphology*. Allahabad: Pravalika Publications.
7. Singh, S., (2020). *Physical Geography*. Allahabad: Pravalika Publications.
8. Strahler, A. N., & Strahler, A. R., (1983). *A Modern Physical Geography*. New York: Wiley.
9. Thornbury, W. D., (1969). *Principles of Geomorphology*. New Delhi: New Age Publishers.
10. Tikka, R. N., (1989). *Bhautik Bhugol*. Meerut: Kedar Nath Ram Nath.

Advanced Reading for Faculty

1. Ahmad, E., (1985). *Geomorphology*. New Delhi: Kalyani Publishers.
2. Barry, R. G., & Chorley, R. J., (1976). *Atmosphere, Weather and Climate*. London: Methuen
3. Chorley, R. J., & Hagget, P. (Ed.). (1973). *The Changing Nature of Geography*. London: Methuen.
4. Dikshit, R. D., (1998). *Geographical Thought: A Contextual History of Ideas*. New Delhi: Prentice Hall.
5. Garrison, T. S., (2013). *Oceanography: An Invitation to Marine Science*. Cengage Learning.
6. Hidore, J., & Oliver, A. E., (2009). *Climatology: An Atmospheric Science*. London: Prentice Hall.
7. Singh, S., (2022). *Oceanography*. Prayagraj: Pravalika Publications.

Hindi Translations Available:

1. Dayal, P., (2007). *Bhoo-Aakriti Vigyan*. New Delhi: Rajesh Publications.
2. Jat, B. C., (2004). *Bhoo-Aakriti Vigyan*. Jaipur: Rawat Publications.
3. Lal, D. S., (2020). *Jalvayu Vigyan*. Allahabad: Sharda Pustak Bhawan.
4. Singh, S., (2013). *Bhautik Bhugol*. Allahabad: Prayag Pustak Bhavan.
5. Singh, S., (2022). *Samudra Vigyan*. Prayagraj: Pravalika Publications.

Teaching Plan for the Academic Session 2022-23

BA 2nd Year, Semester 3rd, Section-B

Teachers:

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Week	Concept Breakdown	Resources Referred
Week 1 16.08.2022 to 20.08.2022	Unit 3: Weather and Climate Elements of Weather and Climate Definition of Temperature, Atmospheric Pressure, Humidity, Cloudiness etc.	Barry, R. G., & Chorley, R. J., (1976). <i>Atmosphere, Weather and Climate</i> . London: Methuen. Chapter 1: Atmospheric Composition, Mass and Structure. Hidore, J., & Oliver, A. E., (2009). <i>Climatology: An Atmospheric Science</i> . London: Prentice Hall. Chapter 1: Climatology in the World Today.
Week 2 22.08.2022 to 27.08.2022	Unit 3: Origin, Structure and Composition of Atmosphere	Barry, R. G., & Chorley, R. J., (1976). <i>Atmosphere, Weather and Climate</i> . London: Methuen. Chapter 1: Atmospheric Composition, Mass and Structure.

		Lal, D. S., (2020). <i>Climatology</i> . Allahabad: Sharda Pustak Bhawan. Chapter 1: The Atmosphere: Origin, Composition and Structure.
Week 3 29.08.2022 to 03.09.2022	Unit 3: Layered structure of atmosphere Troposphere Stratosphere Mesosphere Ionosphere Exosphere	Lal, D. S., (2020). <i>Climatology</i> . Allahabad: Sharda Pustak Bhawan. Chapter 1: The Atmosphere: Origin, Composition and Structure. Singh, S., (2020). <i>Physical Geography</i> . Allahabad: Pravalika Publications. Chapter 32: Composition and Structure of Atmosphere.
Week 4 05.09.2022 to 10.09.2022	Unit 3: Monsoon: Classical Theory, Modern Theory Jet Streams, El Nino & La-Nina Phenomena	Barry, R. G., & Chorley, R. J., (1976). <i>Atmosphere, Weather and Climate</i> . London: Methuen. Chapter 9: Tropical Weather and Climate. Lal, D. S., (2020). <i>Climatology</i> . Allahabad: Sharda Pustak Bhawan. Chapter 8: General Circulation of Atmosphere. Chapter 9: The Monsoon. Singh, S., (2020). <i>Physical Geography</i> . Allahabad: Prayag Pustak Bhawan. Chapter 37: Local and Seasonal Winds. Singh, S., (2022). <i>Oceanography</i> . Prayagraj: Pravalika Publications. Chapter 7: Atmosphere-Sea Interactions.

<p>Week 5 12.09.2022 to 17.09.2022</p>	<p>Unit 4: Configuration of Ocean Floor and Surface Relief of Pacific Ocean</p>	<p>Garrison, T. S., (2013). <i>Oceanography: An Invitation to Marine Science</i>. Cengage learning Chapter 4 Ocean Basins.</p> <p>Sharma, R. C., & Vatal, M., (2016). <i>Oceanography for Geographers</i>. Allahabad: Chaitanya. Chapter 3: The Depth of Oceans.</p> <p>Chapter 5: Bottom Relief of Oceans.</p> <p>Singh, S., (2022). <i>Oceanography</i>. Prayagraj: Pravalika Publications. Chapter 3: Ocean Morphology and Bottom Relief.</p>
<p>Week 6 19.09.2022 to 24.09.2022</p>	<p>Unit 4: Surface Relief of Atlantic and Indian Ocean</p> <p>Continental Shelves, Continental Slopes, Continental Rise, Deep Sea Plain</p>	<p>Garrison, T. S., (2013). <i>Oceanography: An Invitation to Marine Science</i>. Cengage learning Chapter 4 Ocean Basins.</p> <p>King, C. A. M., (1975). <i>Introduction to Physical and Biological Oceanography</i>. London: Edward Arnold. Division 4: Morphology of Open-Ocean Floor.</p> <p>Sharma, R. C., & Vatal, M., (2016). <i>Oceanography for Geographers</i>. Allahabad: Chaitanya. Chapter 3: The Depth of Oceans.</p> <p>Chapter 5: Bottom Relief of Oceans.</p> <p>Singh, S., (2022). <i>Oceanography</i>. Prayagraj: Pravalika Publications. Chapter 3: Ocean Morphology and Bottom Relief.</p> <p>Singh, S., (2020). <i>Physical Geography</i>. Allahabad: Pravalika Publications. Chapter 24: Bottom Relief of Oceans.</p>
<p>Week 7</p>	<p>Unit 4: Temperature and</p>	<p>Garrison, T. S., (2013). <i>Oceanography: An Invitation to Marine Science</i>. Cengage learning Chapter 6: Water and Ocean Structure.</p>

<p>26.09.2022 to 01.10.2022</p>	<p>Salinity of Oceans, Horizontal and Vertical Distribution of Temperature in Ocean Tides and Waves Types of Tides</p>	<p>Chapter 9: Circulation of the Ocean. Chapter 10: Waves. Chapter 11: Tides. Sharma, R. C., & Vatal, M., (2016). <i>Oceanography for Geographers</i>. Allahabad: Chaitanya. Chapter 8: Temperature in the Oceans. Chapter 9: Salinity in Oceans. Chapter 12: Tides and Tidal Waves. Singh, S., (2022). <i>Oceanography</i>. Prayagraj: Pravalika Publications. Chapter 4: Physical Properties of Ocean Water. Chapter 5: Salinity of Seawater. Chapter 12: Tides. Singh, S., (2020). <i>Physical Geography</i>. Allahabad: Pravalika Publications. Chapter 25: Temperature of Ocean Water. Chapter 26: Salinity. Chapter 28: Tides.</p>
<p>Week 8 03.10.2022 to 08.10.2022</p>	<p>Unit 4: Circulation in Pacific Atlantic and Indian Oceans Ocean Currents: Factors affecting Ocean Currents</p>	<p>Garrison, T. S., (2013). <i>Oceanography: An Invitation to Marine Science</i>. Cengage learning Chapter 4 Ocean Basins. Chapter 6 Water and Ocean Structure. Chapter 9 Circulation of the Ocean. Sharma, R. C., & Vatal, M., (2016). <i>Oceanography for Geographers</i>. Allahabad: Chaitanya. Chapter 14: Currents of Atlantic Ocean.</p>

	Currents of Pacific, Atlantic and Indian Oceans	Chapter 15: Currents of Pacific Ocean. Chapter 16: Currents of Indian Ocean and Other Seas. Singh, S., (2022). <i>Oceanography</i> . Prayagraj: Pravalika Publications. Chapter 10: Surface Ocean Currents. Singh, S., (2020). <i>Physical Geography</i> . Allahabad: Pravalika Publications. Chapter 29: Ocean Currents.
Week 9 10.10.2022 to 15.10.2022	Unit 1: Definition, Nature, Scope and Fields of Physical Geography Geological Time Scale	Singh, S., (2013). <i>Physical Geography</i> . Allahabad: Prayag Pustak Bhavan. Chapter 1: Earth's Origin, Age and Geological History. Thornbury, W. D., (1969). <i>Principles of Geomorphology</i> . New Delhi: New Age Publishers. Chapter 1: Background of Geomorphology.
Week 10 16.10.2022 to 21.10.2022	Unit 2: Rocks and their Types: Igneous, Sedimentary, Metamorphic	Singh, S., (2013). <i>Physical Geography</i> . Allahabad: Prayag Pustak Bhavan. Chapter 6 Earth's Movements and Originated Landforms. Chapter 7: Earth's Building Material: Rocks. Strahler, A. N., & Strahler, A. R., (1983). <i>A Modern Physical Geography</i> . New York: Wiley. Chapter 12: Materials of The Earth's Crust.
Week 11 31.10.2022 to 05.11.2022	Unit 1: Earth Movements:	Singh, S., (2013). <i>Physical Geography</i> . Allahabad: Prayag Pustak Bhavan. Chapter 6: Earth's Movement and Originated Landforms.

	<p>Orogenic and Epierogenic</p> <p>Folds and Faults</p> <p>Types of Folds</p> <p>Types of Faults</p>	<p>Singh, S., (2021). <i>Geomorphology</i>. Allahabad: Pravalika Publications. Chapter 8: Earth's Movements and Originated Landforms.</p> <p>Strahler, A. N., & Strahler, A. R., (1983). <i>A Modern Physical Geography</i>. New York: Wiley. Chapter 12 Materials of The Earth's Crust.</p>
<p>Week 12</p> <p>07.11.2022 to 12.11.2022</p>	<p>Unit 2:</p> <p>Earthquakes and Volcanoes:</p> <p>Types of Volcanoes,</p> <p>Distribution of Earthquakes and Volcanoes</p>	<p>Singh, S., (2013). <i>Physical Geography</i>. Allahabad: Prayag Pustak Bhavan. Chapter 10: Earthquakes and Seismology.</p> <p>Strahler, A. N., & Strahler, A. R., (1983). <i>A Modern Physical Geography</i>. New York: Wiley. Chapter 12: Materials of The Earth's Crust.</p> <p>Chapter 13: The Lithosphere and Plate Tectonics.</p> <p>Chapter 14: Volcanic and Tectonic Landforms.</p> <p>Chapter 19: Landforms and Rock Structure.</p> <p>Thornbury, W. D., (1969). <i>Principles of Geomorphology</i>. New Delhi: New Age Publishers. Chapter 15: Landforms resulting from Volcanism.</p>
<p>Week 13</p> <p>14.11.2022 to 19.11.2022</p>	<p>Unit 2:</p> <p>Weathering and Mass Movements</p> <p>Class-Test</p>	<p>Dayal, P., (2007). <i>Bhoo-Aakriti Vigyan</i>. New Delhi: Rajesh Publications. Chapter 13: Weathering, Mass-Wasting and Erosion</p> <p>Singh, S., (2013). <i>Physical Geography</i>. Allahabad: Prayag Pustak Bhavan. Chapter 15: Weathering.</p>

	Types of Weathering	<p>Strahler, A. N., & Strahler, A. R., (1983). <i>A Modern Physical Geography</i>. New York: Wiley. Chapter 15: Landforms of Weathering and Mass Wasting.</p> <p>Thornbury, W. D., (1969). <i>Principles of Geomorphology</i>. New Delhi: New Age Publishers. Chapter 7: Weathering, Soil processes and Mass-Wasting.</p>
<p>Week 14</p> <p>21.11.2022 to 26.11.2022</p>	<p>Unit 2:</p> <p>Process and Landforms of Wind:</p> <p>Erosional Landforms</p> <p>Depositional Landforms</p>	<p>Dayal, P., (2007). <i>Bhoo-Aakriti Vigyan</i>. New Delhi: Rajesh Publications. Chapter 21: The Work of Winds and Aeolian Landforms.</p> <p>Singh, S., (2013). <i>Physical Geography</i>. Allahabad: Prayag Pustak Bhavan. Chapter 21: Wind and Aeolian Landforms.</p> <p>Strahler, A. N., & Strahler, A. R., (1983). <i>A Modern Physical Geography</i>. New York: Wiley. Chapter 21: Landforms made by Wind.</p> <p>Thornbury, W. D., (1969). <i>Principles of Geomorphology</i>. New Delhi: New Age Publishers. Chapter 12: Aeolian Landforms.</p>
<p>Week 15</p> <p>28.11.2022 to 03.12.2022</p>	<p>Unit 2:</p> <p>Process and Landforms of Running Water:</p> <p>Erosional Landforms</p> <p>Depositional Landforms</p>	<p>Dayal, P., (2007). <i>Bhoo-Aakriti Vigyan</i>. New Delhi: Rajesh Publications. Chapter 14: Fluvial Processes and Landforms.</p> <p>Singh, S., (2013). <i>Physical Geography</i>. Allahabad: Prayag Pustak Bhavan. Chapter 18: Running Water and Fluvial Landforms.</p> <p>Strahler, A. N., & Strahler, A. R., (1983). <i>A Modern Physical Geography</i>. New York: Wiley. Chapter 17: Landforms made by Running Water.</p>

		<p>Thornbury, W. D., (1969). <i>Principles of Geomorphology</i>. New Delhi: New Age Publishers. Chapter 5: Complications of Fluvial Cycles.</p> <p>Chapter 6: Stream Deposition.</p>
<p>Week 16 05.12.2022 to 10.12.2022</p>	<p>Unit 2: Fundamental Concepts of Geomorphology Scope of Geography Applied Geography</p>	<p>Dikshit, R. D., (1998). <i>Geographical Thought: A Contextual History of Ideas</i>. New Delhi: Prentice Hall.</p> <p>Chapter 11: Geography and Environmentalism Chapter 12 Place, Space and Locality: The Current Focus in Human Geography.</p> <p>Classroom Discussion: - What is central to Geography?</p> <p><i>How we interact with Space? What is the scope of Geography? Do we have a change in perception towards our environment after studying this course?</i></p> <p><i>How Physical Landscape is associated with cultural Landscape?</i></p>
<p>Week 17 12.12.2022 to 17.12.2022</p>	<p>Classroom Discussion Revision</p>	<p>Classroom Discussion: -</p> <p><i>How Physical Landscape is associated with Cultural Landscape?</i></p> <p><i>Interdisciplinary Nature of Geography.</i></p>
<p>Week 18 19.12.2022 to 24.12.2022</p>	<p>Revision Doubts Clearing Session</p>	<p>How to write a good answer in the subject of Geography!</p> <p>Use of Maps, Diagrams and Flow Charts</p> <p><i>Feedback from Students about the course.</i></p>

	Practice of Answer Writing	
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