

**University of Mumbai**  
**Revised Syllabus w.e.f. Academic Year, 2017-18 (CBSGS)**  
**S.Y.B.A./ S.Y.B.Sc. Geography, Semester- IV**  
**Paper-III: Agriculture Geography of India**  
**COURSE CODE: UAGEO401 (2017-18) Credit - 3**

<b>Unit-I: Introduction to Agricultural Geography</b>		<b>09 (lectures)</b>
1.1	Definition, nature and scope of agricultural geography	
1.2	Approaches: regional approach, systematic approach, commodity approach, recent approaches	
1.3	Importance of agriculture in Indian economy	
1.4	Factors influencing agriculture in India	
1.5	India a agro-product exporting country	
<b>Unit-II: Introduction to Indian Agriculture</b>		<b>09 (lectures)</b>
2.1	Salient features of Indian agriculture	
2.2	Types of farming in India	
2.3	Major crops of India	
2.4	Agro- climatic regions of India	
2.5	Problems associated with Indian agriculture ( Natural, Socio-Economic and Political)	
<b>Unit-III: Green Revolution in India</b>		<b>09 (lectures)</b>
3.1	Introduction of Green Revolution in India	
3.2	Components of Green Revolution	
3.3	Positive impacts of Green Revolution	
3.4	Negative impacts of Green Revolution	
3.5	Need for sustainable agriculture in India	
3.6	Agriculture in drought prone region and watershed management	
<b>Unit-IV: Recent Trends in Agriculture</b>		<b>09 (lectures)</b>
4.1	White revolution and livestock resources,	
4.2	Genetic engineering, tissue culture and horticulture	
4.3	Poly house agriculture	
4.4	Agro processing in India	
4.5	Agro-tourism	
4.6	Agro forestry	
<b>Unit- V</b>		

<b>Practical Component</b>		<b>09 (lectures)</b>
5.1	Interpretation/ question- answer on thematic maps related to agriculture of India ( NATMO and other )	
5.2	Drawing of Statistical Diagrams and Graphs: Simple line graphs, multiple line, simple bar, compound bar and band graph	

### Reference books:-

1. Bansil, B. C. (1975): 'Agricultural Problems of India', Delhi.
2. Bayliss Smith, T.P. (1987) : The Ecology of Agricultural Systems. Cambridge University Press, London .
3. Berry, B.J.L. et. al.(1976) : The Geography of Economic Systems. Prentice Hall, New York.
4. Gregor, H.P.: Geography of Agriculture. Prentice Hall, New York, 1970.
5. Grigg, D. (1984): 'An Introduction to Agricultural Geography', Hutchinson Publication, London
6. Grigg, D.B.(1974) : The Agricultural Systems of the World. Cambridge University Press, New York.
7. Hartshorn, T.N. and Alexander, J.W. (1988): Economic Geography. Prentice Hall, New Delhi.
8. Morgan W.B. and Norton, R.J.C. (1971): Agricultural Geography. Methuen, London,
9. Morgan, W. B. and Munton, R. J. C. (1977): 'Agricultural Geography' Methuen, London.
10. Morgan, W.B.(1978): Agriculture in the Third World - A Spatial Analysis. Westview Press, Boulde.
11. Sauer, C. O. (1952): 'Agricultural Origins and Dispersals', American Geographical Journal
12. Sauer, C.O.(1969): Agricultural Origins and Dispersals. M.I.T. Press, Mass, U.S.A.
13. Singh J.(1997): Agricultural Development in South Asia: A Comparative A Study in the Green Revolution Experiences, national Books Organization, New Delhi.
14. Singh, J. and Dhillon, S. S. (1984): 'Agricultural Geography', McGraw Hill, New Delhi.
15. Singh, J. and Dhillon, S.S. (1988), "Agricultural Geography", 2nd edition, Tata McGraw-Hill, NewDelhi
16. Symons, L. (1972): 'Agricultural Geography', Bell and Sons, London
17. Tarrant, J.R.(1974): Agricultural Geography, Problems in Modern Geography Series, John Wiley and Sons.

18. The Hindu ( 2006): Survey of Indian Agriculture 2006. New Delhi.
19. Wigley, G.(1981), Tropical Agriculture: The Development of Production, 4th edition, Arnold, London

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**Question Paper Pattern**  
**Revised Syllabus w.e.f. Academic Year, 2017-18 (CBSGS)**  
**S.Y.B.A. Geography, Semester- IV**  
**Paper-III: Agriculture Geography of India**  
**COURSE CODE: UGEO401 (2017-18)**

<b>Duration: 3 hours</b>		<b>Marks: 100</b>	
<b>N.B.</b> 1. All questions are compulsory and carry equal marks. 2. Use of Map Stencils and simple Calculator is allowed. 3. Attach appendix along with answer paper.			
Q. 1	<b>Practical, Unit - V</b>	5.1	10 Marks
		5.2	10 Marks
Q. 2	Unit-I		20 Marks
<b>OR</b>			
Q.2	Unit-I		20 Marks
Q. 3	Unit-II		20 Marks
<b>OR</b>			
Q. 3	Unit-II		20 Marks
Q. 4	Unit-III		20 Marks
<b>OR</b>			
Q. 4	Unit-III		20 Marks
Q. 5	Unit-IV		20 Marks
<b>OR</b>			
Q. 5	Unit-IV		20 Marks

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**Revised Syllabus w.e.f. Academic Year, 2017-18 (CBSGS)**  
**S.Y.B.A. Geography, Semester- IV**  
**Paper-II: Introduction to Oceanography**  
**COURSE CODE: UAGEO 402 (2017-18), Credit - 3**

<b>Unit-I: Nature of Oceanography</b>		<b>09 (lectures)</b>
1.1	Origin and Development of Oceanography	
1.2	Oceanography : meaning, definition, nature and scope	
1.3	Branches of oceanography: physical chemical and biological	
1.4	Major Oceans and its characteristic features	
<b>Unit-II: Bottom Relief and Ocean Water</b>		<b>09 (lectures)</b>
2.1	Ocean floor and its characteristics	
2.2	Composition of ocean water	
2.3	Factors affecting ocean water temperature	
2.4	Vertical and horizontal distribution of ocean temperature	
2.5	Factors affecting salinity of ocean water	
2.6	Vertical and horizontal distribution of oceanic salinity	
<b>Unit-III: Movements of Ocean Water</b>		<b>09 (lectures)</b>
3.1	Waves- Formation and types	
3.2	Tsunami and their effects on coast	
3.3	Concept and types of Tides	
3.4	Equilibrium theory of Tides	
3.5	Ocean Currents – types and their effects	
<b>Unit-IV: Man and Ocean</b>		<b>09 (lectures)</b>
4.1	El- Niño and La-Niña phenomenon	
4.2	Coral reefs and their importance	
4.3	Marine Ecosystem	
4.4	Marine pollution	
4.5	Oceans and global climate change	
<b>Unit-V: Practical Component</b>		<b>09 (lectures)</b>
5.1	Map filling : Related to Oceanography	
5.2	Reading and Interpretation of navigation charts and bathymetric maps	

## Reference books:-

1. Bhatt, J.J. (1978): Exploring the Planet Ocean, D.Von Nostrand Co. New York.
2. Birla Economic Research Foundation, economic Research Division (1992): The Oceans, Allied Publishers Ltd. New Delhi.
3. Chandra, S. and Others (eds). (1993): The Indian Ocean and its islands: Strategic Scientific and Historical perspectives, sage Publications, New Delhi.
4. Chawan S.V. (ed) (2015): Physical Geography, Paper I, Published by Director (I/C), Institute of Distance and Open Learning, University of Mumbai.
5. Fairbridge, R.W. (ed) Encyclopaedia of Oceanography, Reinhold, New York.
6. Sharma, R.C. (ed) (1985): The Oceans: realities and Prospects, Rajesh Publications, New Delhi.
7. Sengupta, R. and Desa E. (eds) (2001): The Indian Ocean: A Perspective Vol., I and II Oxford and IBH Publishing Company Private Limited, New Delhi.
8. Paul, P.R. (1998): Invitation to Oceanography, Jones and Bartlett Publishing, Sudbury, Massachusetts.
9. Rajgopalan, R. (ed) (1996): Voices for Oceans, A Report to the Independent World Commission on the Oceans, International Ocean Institute, Operational centre, Madras, India.
10. Qasim, S.Z. (1998): Glimpses of Indian Ocean, Universities Press (India) Limited, Hyderabad.

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### Question Paper Pattern

**Revised Syllabus w.e.f. Academic Year, 2017-18 (CBSCS)**

**S.Y.B.A. Geography, Semester- IV**

**Paper-II- (Introduction to Oceanography)**

Duration: 3 hours		Marks: 100	
<b>N.B.</b> 1. All questions are compulsory and carry equal marks. 2. Use of Map Stencils and simple Calculator is allowed. 3. Attach appendix along with answer paper.			
Q.1	<b>Practical Unit V:</b> 5.1		10 Marks
	5.2		10 Marks
Q. 2	Unit-I		20 Marks
<b>OR</b>			
Q.2	Unit-I		20 Marks
Q. 3	Unit-II		20 Marks
<b>OR</b>			

Q. 3	Unit-II		20 Marks
Q. 4	Unit-III		20 Marks
<b>OR</b>			
Q. 4	Unit-III		20 Marks
Q. 5	Unit-IV		20 Marks
<b>OR</b>			
Q. 5	Unit-IV		20 Marks

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