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ANNA UNIVERSITY (UNIVERSITY DEPARTMENTS)

B.E. / B. Tech / B. Arch (Full Time) - END SEMESTER EXAMINATIONS, APR/MAY 2024

Geoinformatics, VI Semester, Regulation 2019

GI 5009 Oceanography and Coastal Processes

Time: 3hrs

Max.Marks: 100

CO 1	Understand the coastal processes and various physical, chemical and biological characteristics of sea water.
CO 2	Gain knowledge on the methods and instruments of sea water sampling.
CO 3	Helps to realize the applicability of visible remote sensing for ocean observation
CO 4	Impart the knowledge about coastal dynamism and coastal hazards
CO 5	Aware of various techniques for salvation and managerial skills on critical issues of ocean disasters.

BL – Bloom's Taxonomy Levels

(L1 - Remembering, L2 - Understanding, L3 - Applying, L4 - Analysing, L5 - Evaluating, L6 - Creating)

PART- A (10 x 2 = 20 Marks)

(Answer all Questions)

Q. No	Questions	Marks	CO	BL
1	Define coast with its types.	2	1	1
2	What do you mean by exclusive economic zone?	2	1	2
3	Describe the density stratification of sea water.	2	2	1
4	What is Secchi disk and Secchi depth?	2	2	2
5	List out the historical missions from which ocean color and temperature observation can be done.	2	3	1
6	What are the causes of sea water intrusion?	2	3	2
7	Write down the principle of wind field retrieval from scatterometer data.	2	4	1
8	Differentiate between inherent and apparent optical properties.	2	4	2
9	Write down the importance of coastal wetlands.	2	5	1
10	What are the impacts of sea level rise?	2	5	2

PART- B (5 x 13 = 65 Marks)

(Restrict to a maximum of 2 subdivisions)

Q. No	Questions	Marks	CO	BL
11 (a)	Discuss in detail about the ocean basin configuration with neat sketch.	13	1	L3
OR				
11 (b)	Define Ocean current and Give a detail account on wind driven global ocean current models.	13	1	L3
12 (a)	Discuss in detail about the light transmission characteristics of sea water and its merits.	13	2	L3
OR				
12 (b)	Write with neat sketch about the instruments and its operation of sea water sampling and measurement.	13	2	L3
13 (a)	What is the need of protection for coastal landforms? And discuss about the various coastal protection structures.	13	3	L4
OR				

13 (b)	Discuss in detail about the pollution dispersion modelling in the estuarine region.	13	3	L4
14 (a)	Discuss in detail about the estimation of sea level anomaly using altimeter.	13	4	L4
OR				
14 (b)	Explain in detail about the ocean colour observation and sea water chlorophyll concentration estimation.	13	4	L4
15 (a)	What is the need of regulation in coastal regions? and give a detailed account on coastal regulation zone mapping.	13	5	L5
OR				
15 (b)	Discuss in detail about the shoreline change analysis and its prediction using remote sensing data products.	13	5	L5

PART- C (1 x 15 = 15 Marks)
(Q.No.16 is compulsory)

Q. No	Questions	Marks	CO	BL
16.	What are challenges exist in coastal region? And how will you monitor and protect the overall coastal system using remote sensing and GIS.	15	1,2,3, 4,5	L5,L6

