



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – ADVANCED ZOOLOGY AND BIOTECHNOLOGY

FOURTH SEMESTER – APRIL 2023

UAZ 4601 – ESSENTIALS OF MARINE BIOLOGY

Date: 06-05-2023

Dept. No.

Max. : 100 Marks

Time: 09:00 AM - 12:00 NOON

SECTION A - K1 (CO1)

Answer ALL the Questions

(10 x 1 = 10)

1. Definitions	
a) Neap tide	
b) Euryhaline	
c) Allochthonous	
d) Zooxanthellae	
e) BOD	
2. MCQ	
a) Average length of time a substance remains dissolved in seawater. a) Heat Capacity b) Latent heat c) Residence time d) None of the above	
b) The wavelength between 280 to 315nm. a) UV C b) UV D c) UV A d) UV B	
c) Trade winds weaken and warm water is pushed back to east. a) El Nino b) La Nina c) ENSO d) None of the above	
d) A ring of coral reefs that grows on a submerged volcano is called..... a) Fringing Reefs b) Atolls c) Barrier Reefs d) Bleached Cora	
e) The animals that drift in the water current. a) Plankton b) Benthos c) Nekton d) Both a & b	

SECTION A - K2 (CO1)

Answer ALL the Questions

(10 x 1 =

10)

3. Fill in the blanks	
a) The process where water evaporates from the leaves of plants is called.....	
b) The enzyme present in the nitrogen fixing bacteria is.....	
c) The low-point of wave is called as	
d)is a coupled ocean-atmosphere cycle	
e) To replace warm water, cold nutrient-rich water rises from the depths a process called.....	
4. Match the following	
a) Aphelion - Modified roots	
b) CTD - Mangroves	
c) Pneumatophores - Earth & Sun	
d) Nekton - Temperature	

e)	Blue carbon - Swimmers
SECTION B - K3 (CO2)	
	Answer any TWO of the following (2 x 10 = 20)
5.	Illustrate the combined effect of ocean temperature, salinity and density
6.	Explain the types and ecological importance of UV radiation
7.	Demonstrate the salient features of estuaries
8.	Classify and explain the coral reefs
SECTION C - K4 (CO3)	
	Answer any TWO of the following (2 x 10 = 20)
9.	Bring out a comparative account on plankton and nekton and add a note on plankton collection.
10.	Elaborate the various sources of marine pollution and its control measures.
11.	Evaluate the role of national and international organizations in ocean management.
12.	Compare and contrast <i>El nino</i> and <i>La nina</i> .
SECTION D - K5 (CO4)	
	Answer any ONE of the following (1 x 20 = 20)
13.	Compile the major zones of marine eco-system.
14.	Summarize the physical properties of seawater.
SECTION E - K6 (CO5)	
	Answer any ONE of the following (1 x 20 = 20)
15.	Compile the ecological importance of mangroves and biophysical features of tides.
16.	Formulate the ecological importance of any four biogeochemical cycle.

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