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Mid-term Examination – December 2020

Programme	: B.Tech. (All branches)	Semester	: Fall 2020-21
Course	: Environmental Science	Code	: CHY1002
Faculty	: Dr. Sumit Mittal	Slot/Class no.	: A11+A12 /1352
Time	: 90 Minutes	Max. Marks	: 50

Answer all the Questions

Q. No.	Question Description	Marks
1	<p>A. Mercury (Hg), is found in less low concentration (< 0.01 ppm) in sea water. Furthermore, in marine ecosystem, algae absorb less low concentration of mercury in the form of Methyl mercury. But more than 1 ppm of mercury concentration is found in Shark fish, found in sea water. Explain how higher concentrations of mercury are found in Shark Fish.</p> <p>B. Discuss how the hydrologic cycle is expected to change over the next century.</p>	8
2	<p>A. Define and substantiate the differences between a food chain and a food web. What happens to energy as it flows through food chains and food webs?</p> <p>B. Draw the food chain for the species: Insect larvae, bacteria, birds, fallen leaves.</p>	8
3	Define and discuss the process of ecological or biotic succession on a bare rock or a pond.	8
4	<p>AquaBounty Technologies has genetically engineered salmon to speed up the fish's growth processes so they are active most of the year versus only part of the year. The fast-growing salmon can reach market size in 18 months, roughly half the time its non-genetically modified counterpart, and requires less feed.</p> <p>Chart out the possible advantages and disadvantages of this genetically engineered fish on the aquatic ecosystem and the consumer.</p>	10
5	Discuss the various sources of varying level of sediments in a water body. How does the level of sedimentation affect an aquatic ecosystem?	8
6	You are an analyst for the Empire State University in Delhi. The university needs to assess and effectively manage the risks in case of physical reopening of the university for students and faculties which has been closed since March in view of	8

	the COVID-19 pandemic. You are asked to carry out a risk assessment and management analysis to identify the measures needed to reduce the risks from coronavirus and keep the university COVID-secure. Present your results from this risk assessment and management analysis.	
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