	Set 1	Set 2	Set 3
1	According to IUCN, six types of plant and animals are specified in Red Data Book. Discuss all types with examples.	Write down the working principle of an electrostatic precipitator (ESP) for removing particulate matter from air.	What is Ex-Situ conservation of biodiversity? Classify them and discuss.
2	Draw the flow sheet of sewage water treatment plant.	Write down the principle of colloidal particles removal from the waste water with sketches?	What do you understand by acid rain? Describe its formation in the atmosphere.
3	Compute the plate area of an ESP attached to a stack handling a flow of 4000 m^3/min, if the settling velocity of the dust is 0.11 m/s. Consider the ESP efficiency is 98%.	Calculate the equivalent sound pressure level if a domestic fridge generates a noise of 75 dB for 5 min in every hour. The background noise of the room is 45 dB.	Justify one molecule of chlorofluorocarbon (chlorine) degrade more than 1 lakh number of ozone molecule with suitable chemical reaction.
4	What is in-Situ conservation of biodiversity? Classify them and discuss.	What do you understand by hot spot biodiversity? Briefly discuss the hot spot biodiversity of India.	What is rain water harvesting? What are the reasons for using rainwater harvesting system?
5	Distinguish between endemic and endangered species with examples.	Write down different techniques for the removal of pollutant gases from the air.	What will be the sound power level combining the four sound levels of 56, 68, 71, and 48 dB.
6	Compute the landfill area requirement for 20 years for a city of population about 6 Lakh. (Assume MSW generation as 500 gm per capita per day; MSW density as 500 kg/m^3; Height of the dump is 15 m).	Differentiate between renewable and nonrenewable energy resources. Discuss various types of biomass energy.	A bag house is to be constructed using bags of 0.25 m diameter and 6 m long. It is receiving 15 m^3/s of air. Assume the filtration rate is 2.2 m/min. Determine the number of bags required in the bag house.
7	Write about point and area sources of water pollution with proper sketches and examples?	What do you understand by ozone hole? Describe the consequences of ozone layer depletion?	Differentiate between the primary and secondary ecological successions?
8	Write the impact of noise on health and the major noise reduction technique?	Write major functions of ecosystem? What is biomagnification?	Draw the parasitic food chain and pyramid of numbers?
9	Discuss municipal solid waste management technique with a suitable schematic diagram.	How biomass energy is different from biogas energy? Enumerate the difference with examples.	Draw pyramid of biomass for terrestrial and aquatic ecosystem.
10	Differentiate primary and secondary air pollutants.	Discuss various major threats to biodiversity in India.	Differentiate primary and secondary energy sources with examples.