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**Question 25 (5 marks)**

What is the relationship between dissolved oxygen and biochemical oxygen demand and why is it important to monitor both in natural ways? 5

Dissolved oxygen is the amount of oxygen that has been dissolved into a body of water. Biochemical oxygen demand is when a sample of water is tested for dissolved oxygen, left in a dark place for five days and then retested for dissolved oxygen. BOD is the difference between the two measurement. It is important to monitor both in natural water ways as dissolved oxygen is essential for the survival of aquatic organisms such as fish. A high biochemical oxygen demand (BOD) can be a sign of pollution in a water way. This would mean that there is less dissolved oxygen available to these organisms & also there could be the presence of other potentially harmful chemicals which would affect their health. Hence, to maintain biodiversity & a healthy water system, dissolved oxygen & BOD must be monitored & kept in a healthy range.