

Q-3	Explain the following techniques with suitable diagram-	
a.	Briefly describe the properties of water.	7
b.	What is bomb calorimeter? Explain its structure and function.	7
Q-4	What do you mean by membrane potential? How it is maintained? Explain it with suitable diagram.	14
Q-5	Attempt all questions	
a.	What do you mean by endothermic and exothermic reactions? Give example of each.	7
b.	Briefly explain entropy.	7
Q-6	Attempt all questions	
a.	What is first law of thermodynamics? Explain it with suitable example.	7
b.	Briefly explain the second law of thermodynamics.	7
Q-7	Attempt all questions	
a.	What is evaporative cooling? Briefly explain its effects with suitable example.	7
b.	Explain the change of density of water at different temperatures.	7
Q-8	Write notes on-	
a.	How many joules of energy are needed to raise the temperature of an iron nail (7.0 g) from 25°C to 125°C? (The specific heat of iron is 0.45 J/°C·g.)	7
b.	What do you mean by energy? Write 4 forms of energy.	(3+4)

