Project Design Phase-I
Proposed Solution Template

Project Name	Hazardous Area Monitoring for Industrial plant
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
	Problem Statement (Problem to be solved)	Hazardous Area Monitoring for Industrial Plant powered by IoT
	Idea / Solution description	The project focuses on the necessity of monitoring hazardous regions in industrial plants. The only places that include both hazardous and nonhazardous sections are industrial plants. Occasionally, it's crucial to monitor the dangerous locations in industrial buildings. If the destruction in these regions poses a risk to persons or property, it should be avoided. Monitoring these locations can therefore make it simpler to monitor hazardous areas. Hazardous regions may have smart gadgets included that can assist in spotting any suspicious activity that might take place there.

	Novelty / Uniqueness	* A hazardous zone is any location with an environment that contains or may contain explosive or flammable gases, vapour, or dust. When installing equipment, these regions are meticulously examined with condition monitoring to reduce the risk to people and property. Effective monitoring of equipment functioning in these circumstances is essential to preventing problems before they arise. Unlike most sectors, these problems don't just cause downtime, but present a significant safety risk.* To prevent downtime, perform regular maintenance, and lower the risk of failure, condition monitoring is crucial in industrial operations. Due to a lack of affordable and simple installation options, as well as the frequently difficult situations in which this equipment exists, remote condition monitoring has thus been restricted in hazardous locations. Equipment utilised in underwater applications or on offshore operations, for instance, cannot be easily or routinely inspected.
	Social Impact / Customer Satisfaction	1) To stop pollution 2) Continuous plant monitoring; 2) Continuous plant monitoring; 4) Computerized detection 5) Fantastic client service
	Business Model (Revenue Model)	Raspberry -Pi 3 Temperature Sensor - DS18B20 Gas Sensor - MQ 5/9 Breadboard Raspbian OS (Running on Rpi-3) Simple push API Thing speak Cloud Platform
	Scalability of the Solution	This system is deployable in numerous industrial mines, underground factories, and metal factories for automated welding, refineries, and even production lines for heavy parts. It's beneficial to create a productive and safe work environment while also opening new strategies to raise the safety standards of the location.