UNIT-IV

Multiple Choice questions

1	**Radiation sensors are primarily used to detect:**
	A) Pressure B) Light and ionizing radiation C) Humidity D) Sound
2	**A photo resistor is also known as:**
	A) Thermistor B) LDR (Light Dependent Resistor) C) Strain Gauge D) Hall Sensor
3.	**The resistance of an LDR:**
	A) Increases with light intensity B) Remains constant C) Decreases with light intensity D) Depends only on temperature
4.	**Which of the following is a photo detector?**
	A) Photodiode B) Thermocouple C) Potentiometer D) LVDT
5	**X-rays belong to which region of the electromagnetic spectrum?**
	A) Radio waves B) Infrared rays C) Visible light D) High-energy electromagnetic radiation
6.	**Which device is commonly used for detecting nuclear radiation?**
	A) Geiger-Müller Counter B) Thermistor C) Strain Gauge D) Tachometer
7	**Fiber optic sensors work based on changes in:**
	A) Electrical resistance B) Light transmission properties C) Magnetic flux D) Pressure only

8.	**Which of the following is an advantage of fibre optic sensors?** A) Susceptible to electromagnetic interference B) Large size C) Immune to electromagnetic interference D) High power consumption
9	**An electrochemical cell converts:**
	A) Chemical energy into electrical energy B) Mechanical energy into heat C) Heat into light D) Magnetic energy into sound

10.	**The standard electrode potential is measured with respect to:**
	A) Copper Electrode B) Silver Electrode C) Standard Hydrogen Electrode D) Zinc Electrode
11.	**The standard potential of SHE is:**
	A) +1.0 V B) 0 V C) -1.0 V D) +0.5 V
12.	**Polarization in an electrochemical cell refers to:**
	A) Decrease in cell voltage due to current flow B) Increase in resistance only C) Increase in temperature D) Light emission
13.	**Concentration polarization occurs because of:**
	A) Temperature variation B) Magnetic field variation C) Change in ion concentration near electrodes D) Pressure variation
14	**Which of the following is commonly used as a reference electrode?**
	A) Platinum Electrode B) Saturated Calomel Electrode C) Iron Electrode D) Carbon Electrode
15	**. Electro ceramic gas sensors are widely used for detecting:**
	A) Gas concentration B) Sound intensity C) Light intensity D) Humidity only
	Fill in the Blanks
1.	**A photo resistor is also called an _____.**
2.	**The resistance of an LDR decreases as _____ intensity increases.**
3.	**A photodiode converts light energy into _____ energy.**
4.	**X-rays have very _____ energy compared to visible light.**
5	**Nuclear radiation can be detected using a _____-Müller counter.**
6	**Fiber optic sensors transmit information using _____.**

7	**Fiber optic sensors are immune to electromagnetic _____.**
8	**An electrochemical cell consists of two electrodes and an _____.**
9	**The standard hydrogen electrode has a potential of _____ volts.**
10	**The potential difference between two electrodes is called the cell __**
11	**Liquid junction potential occurs at the interface of two _____.**
12	**Polarization causes a reduction in cell _____.**
13	**Concentration polarization results from changes in ion _____ near the electrode surface.**
14	**The saturated calomel electrode is a common _____ electrode.**
15	**Electro ceramic sensors are frequently used for _____ sensing applications.**