

UNIT-III

Multiple Choice questions

1	What is the primary function of a magnetic sensor?
	A) Measure temperature B) Detect magnetic fields C) Measure pressure D) Detect humidity
2	Magneto-resistive sensors operate on the principle that
	A) Capacitance changes with magnetic field B) Resistance changes with magnetic field C) Inductance changes with temperature D) Voltage changes with pressure
3.	AMR stands for:
	A) Automatic Magnetic Response B) Anisotropic Magneto Resistance C) Analog Magnetic Relay D) Advanced Magnetic Rotation
4.	In AMR sensors, resistance depends on:
	A) Temperature only B) Current only C) Angle between current and magnetic field D) Voltage only
5	Hall effect was discovered by:
	A) Michael Faraday B) Edwin Hall C) James Maxwell D) Nikola Tesla
6.	Hall voltage is produced
	A) Parallel to current flow B) At right angles to current flow C) Along magnetic field lines D) Due to temperature changes
7	Semiconductor magneto resistors are generally made of:
	A) Iron B) Copper C) Silicon or Indium Antimonide D) Aluminum



8.	Eddy currents are induced in a conductor due to:
	A) Constant magnetic field B) Changing magnetic field C) Static electric field D) Mechanical force
9	Inductive sensors are mainly used to detect:
	A) Non-metallic objects B) Metallic objects C) Sound waves D) Light intensity

10.	Eddy current sensors are commonly used for:
	A) Speed and displacement measurement B) Humidity measurement C) pH measurement D) Gas detection
11.	Rotary movement transducers convert:
	A) Pressure into voltage B) Angular motion into electrical signals C) Temperature into resistance D) Light into current
12.	A synchro is primarily used for:
	A) Measuring temperature B) Remote transmission of angular position C) Measuring pressure D) Measuring flow rate
13.	Synchro's operate on the principle of:
	A) Electromagnetic induction B) Piezoelectric effect C) Photoelectric effect D) Thermoelectric effect
14	Which sensor directly uses Hall voltage for operation?
	A) Hall Effect Sensor B) LVDT C) Thermistor D) Strain Gauge
15	Magneto-resistance is defined as the change in:
	A) Capacitance due to magnetic field B) Resistance due to magnetic field C) Voltage due to temperature D) Inductance due to pressure
Fill in the blanks	
1.	Magnetic sensors are used to detect _____ fields
2.	The Hall effect was discovered by _____ Hall
3.	. Hall voltage is generated perpendicular to both current and the _____ field.
4.	Magneto-resistive sensors work on the change of _____ due to a magnetic field..
5	AMR stands for _____ Magneto-resistance.
6	Semiconductor magneto resistors are highly sensitive to _____ fields.



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7	Eddy currents are produced in a conductor by a _____ magnetic field.
8	Inductive sensors mainly detect _____ objects.
9	The Hall effect is widely used for position and _____ sensing
10	Rotary transducers convert angular motion into _____ signals.
11	Synchros are used for remote transmission of _____ position.
12	The operation of a synchro is based on electromagnetic _____.
13	Eddy current sensors can measure displacement without _____ contact.
14	In AMR sensors, resistance changes with the _____ between current and magnetic field
15	Hall effect sensors are widely used in brushless _____ motors.