UNIT IV and UNIT V

1.	Which transducer is known as 'self-generating transducer **A. Active transducer** B. Passive transducer C. Secondary transducer D. Analog transducer
2.	What is the principle of operation of LVDT? **A. Mutual inductance** B. Self-inductance C. Permanence D. Reluctance
3.	Which of the following can be measured using Piezo-electric transducer? A. Velocity B. Displacement **C. Force** D. Sound
4.	The linear variable differential transformer transducer is **A. Inductive transducer** B. Non-inductive transducer C. Capacitive transducer D. Resistive transducer
5.	In LCD, the liquid crystal exhibits properties of A. Liquid B. Solids C. Gases **D. Both (a) and (b)**
6.	By which properties, the orientation of molecules in a layer of liquid crystals can be changed? A. Magnetic field **B. Electric field** C. Electromagnetic field D. Gallois field
7.	The direction of electric field in an LCD is determined by _____ **A. The molecule's chemical structure** B. Crystalline surface structure C. Molecular Orbital Theory D. Quantum Cellular Automata
8.	What is the backplane in LCD? A. **The ac voltage applied between segment and a common element** B. The dc voltage applied between segment and a common element C. The amount of power consumed D. For adjusting the intensity of the LCD

9.	Which of the following represent active transducer? A. Strain gauge B. Thermistor C. LVDT **D. Thermocouple**
10.	Capacitive transducer is used for? A. Static measurement **B. Dynamic measurement** C. Transient measurement D. Both static and dynamic
11.	Hall Effect is a/an _____ A. Electronic B. Magnetic **C. Galvanic** D. Ionizing
12.	Thermistor temperature coefficient is **A. Negative** B. Positive C. Zero D. Unique
13.	Strain gauge is a A. Mechanical displacement into a change of resistance B. Electrical displacement into a change of resistance C. Mechanical displacement into a change of resistance D. **Electrical displacement into a change of resistance**
14.	LCDs operates at frequency ranges from A. 10Hz to 60Hz B. 50Hz to 70Hz **C. 30Hz to 60Hz** D. 20Hz to 80Hz
15.	The dark and average brightness photo resistor has A. Low resistance B. High current C. **High resistance** D. Both A and B
16.	Photoconductors are made of _____ A. Thick layer of semiconductor **B. Thin layer of semiconductor** C. Capacitive substrate D. Inductive substrate
17.	Gallium arsenide based LEDs emit radiation in the A. **Visible Range** B. Infrared Region C. Ultra violet Region D. Ultrasonic Region

18.	Thermistor has a resistance of _____ A. 250 Ω to 500 kΩ B. 50 Ω to 10 kΩ C. 1 Ω to 1 kΩ **D. 100 Ω to 100 kΩ**
19.	What mode should we put the Arduino pin to, for object detection to work with the IR Sensor? A. Analog **B. Digital** C. PCM D. TDM
20.	If 1 means an object is detected and 0 meaning no object is detected, then considering the sensor is stationary, what can be said about the movement of the object if the output by the sensor is 1010101? A. Object is stationary **B. Object is oscillating side by side** C. Object is continuously moving away D. d) Object is continuously moving closer
21.	Which of the following is used in photo conductive cell? **A. Selenium** B. Quartz C. Rochelle salt D. Lithium sulphate
22.	When the interconnection between two station has large reactance A. The transfer of power with voltage fluctuation B. The transfer of power will take place with least loss **C. The stations will fall out of step** D. None of the above
23.	A 3-phase four wire system is commonly used in A. Primary transmission B. Secondary transmission C. Primary distribution **D. Secondary distribution**
24.	Feeder is designed mainly from the point of view of A. Its current carrying capacity B. Voltage drop in it C. Operating voltage D. Operating frequency
25.	The main drawback of underground system over overhead system is A. Exposure to lightning **B. Heavy initial cost** C. Exposure to atmospheric hazards D. Power and communication circuits.
26.	Which of the following features is not possessed by biosensor?

	A. The biocatalyst used in the biosensor must be highly specific for the purpose of the analyses B. The reaction occurring in the biosensor should be as independent of such physical parameters C. Active site is mainly constituted by non-polar amino acids for catalysis to take place D. **The response from the biosensors should be accurate, precise, reproducible and linear**
27.	Distribution of charges: Potentiometric biosensor:: Mass of reactants or products: _____ A. Optical biosensor B. Calorimetric biosensor **C. Piezo-electric biosensor** D. Amperometric biosensor
28.	In a biosensor _____ is one which involves subtracting a 'reference' baseline signal from the sample signal. **A. Signal processor** B. Amplifier C. Detector D. Transducer
29.	Which of the following method of measurement does a bridge circuit uses? A. Relative **B. Comparison** C. Absolute D. Differential
30.	Under which of the following conditions a bridge is balanced? A. **When no current flows** B. When the temperature of the circuit is high C. When power dissipation is high D. When no voltage drop across the circuit
31.	A Schering bridge can be used for the _____ A. protecting the circuit from temperature rises **B. testing capacitors** C. measuring voltages D. measuring currents
32.	Which type of semiconductor is used in Tunnel Diode? A. Compound semiconductor B. Elemental semiconductor **C. Degenerated semiconductor** D. Extrinsic semiconductor
33.	he sensitivity of thermocouple is defined as the time required by thermocouple to reach how much percentage of its steady state values? A. 43.3 B. 53.2 **C. 63.3**

	D. 73.3
34.	The response time for different sizes and materials of thermocouple wires usually lie between **A. 0.04 to 2.5 seconds** B. 0.06 to 1.2 seconds C. 0.02 to 0.04 seconds D. 2.4 to 9.4 seconds
35.	Which of the following technique can't be used for generating electron-hole pairs in electronic devices? A. Thermal excitation B. Impact ionization C. Photo excitation **D. Impurity injection**
36.	Which of the following distribution system is preferred for good efficiency and high economy? **A. Single-phase, 2-wire system** B. 2-phase, 3-wire system C. 3-phase, 3-wire system D. 3-phase, 4-wire system
37.	The main reason for using high voltage for long distance power transmission is A. **Reduction in transmission losses.** B. Reduction in time of transmission. C. Increase in system reliability D. None of the above
38.	What is the difference between Photodiode and Solar cell? A. No External Bias in Photodiode **B. No External Bias in Solar cell** C. Larger surface area in photodiode D. No difference
39.	What should be the band gap of the semiconductors to be used as solar cell materials? A. 0.5 eV B. 1 eV **C. 1.5 eV** D. 1.9 eV
40.	In plate earthing the earth plate made up of copper size **A. 60cm×60cm×3.18mm** B. 70cm×80cm×3.18mm C. 80cm×65cm×3.18mm D. 90cm×60cm×3.18mm