PARALLEL OPERATION. A machine operation where all the bits or characters of a word are handled at the same time.

PERMEABILITY. The property of a magnetic material that indicates its relative ability to accept magnetism.
Permeability = Flux Density ÷ Ampere-Turns (MU = B/H).

POTENTIOMETER. A variable voltage divider; a resistor having a variable contact arm so that any portion of the potential applied between its ends may be selected.

PULSE. A change, relatively short in time, in voltage applied to a circuit.

PULSE REPETITION FREQUENCY. The number of nonsinusoidal cycles (square waves) that occur in 1 second.

PUNCH THROUGH. The condition where a transistor has exceeded its limit of control and acts as a low resistance device. Punch through results when the reverse-bias supply completely ionizes the base region.

PYRAMIDING FACTOR. The maximum loading (number of transistor bases) that can be driven by a particular circuit.

QUIESCENCE. The operating condition of a circuit when no input signal is applied to the circuit.

READ. To take information or data out of a storage medium.

REGENERATE. To read information out of a storage unit and, after amplification, to read it back into the same storage location.

RESONANCE. The natural frequency of vibration of a physical or electrical system.

REVERSE-BIAS. An external potential applied to a PN junction such as to widen the depletion region and prevent the movement of majority current carriers.

RISE TIME. The time when the leading edge of a pulse increases from 10 percent to 90 percent of its maximum value.

SATURATION. The condition occurring when a transistor is driven so hard that its base becomes forward-biased in respect to its collector.

SATURATION (LEAKAGE) CURRENT (I_{CO}). The current flow between the base-collector or between the emitter and collector measured with the emitter lead or the base lead, respectively, open.

SEMICONDUCTOR. A conductor, whose resistivity is between that of metals and insulators, in which electrical charge carrier concentration increases with increasing temperature over a specific temperature range.

SERIAL OPERATION. A type of machine operation where information is handled one digit or character at a time.

SHIELDING. A metallic covering used to prevent magnetic or electrostatic coupling between adjacent circuits.

SKEW. A term used to indicate a non-symmetrical condition of two waveforms that results in a changed time relationship. One waveform may be developed more on one side or in one direction than the other.

STABILITY. Freedom from undesired variation.

STABISTOR. A semiconductor diode having a constant forward-voltage drop over a wide range of forward current.

STORAGE. A general term given equipment having the ability to hold and store information.

STORAGE TIME. The time during which the output current or voltage of a pulse is falling from maximum to zero after the input current or voltage is removed.

STORED BASE CHARGE. The phenomenon associated with the storage of minority charge carriers in the base region under conditions of saturation.

STRAY CAPACITANCE. The capacitance introduced into a circuit by the leads and wires that connect circuit components.

SWITCH. Diode or transistor circuitry that requires coincidence of two or more signals to produce an output signal.

THERMISTOR. A type of varistor that changes electrical resistance with changes in temperature. Thermistors provide a constant AC voltage drop for reference purposes.

TRANSISTOR. A semiconductor device capable of transferring a signal from one circuit to another and producing amplification.

TRIGGER CIRCUIT. A circuit requiring an input signal (trigger) to produce a desired output that is determined by the characteristics of the circuit (also known as a flip-flop or bi-stable multivibrator circuit).

TURN-ON DELAY. The finite time delay between the start of the input and the start of the output signals when the transistor is forward biased on. The delay results from the difference in velocities and path lengths taken by the carriers when passing through the transistor.

TURN-OFF DELAY. The finite time delay between the end of the input and the end of the output signals when the transistor is reversed-biased off. The delay results from differences in the path length, velocity, and the base storage of the carriers in passing through the transistor.

VALIDITY CHECK. A check of information within the machine to insure valid digit representation.

VARISTOR. A component whose resistance varies with the applied voltage.

VOLTAGE DIVIDER. An impedance connected across a voltage source. The load is connected across a fraction of this impedance so that the load voltage is substantially in proportion to the resistance of this fraction.

VOLTAGE GAIN. The ratio of incremental values of output voltage to input voltage of an amplifier under load conditions.

WRITE. The process of placing information or data in a storage medium.

ZENER DIODE. A PN junction diode reverse-biased into the breakdown region (used for voltage stabilization).