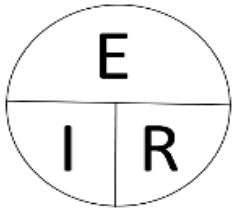
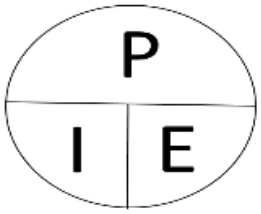
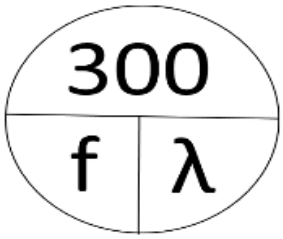


E = Electromotive Force (Volts)
I = Current (Amps) Intensity
R = Resistance (Ohms)



P = Power (Watts)
I = Current (Amps)
E = Electromotive Force (Volts)



f = frequency in MHz
λ = wavelength

Voltage stays the same in a parallel circuit
Current stays the same in series circuit

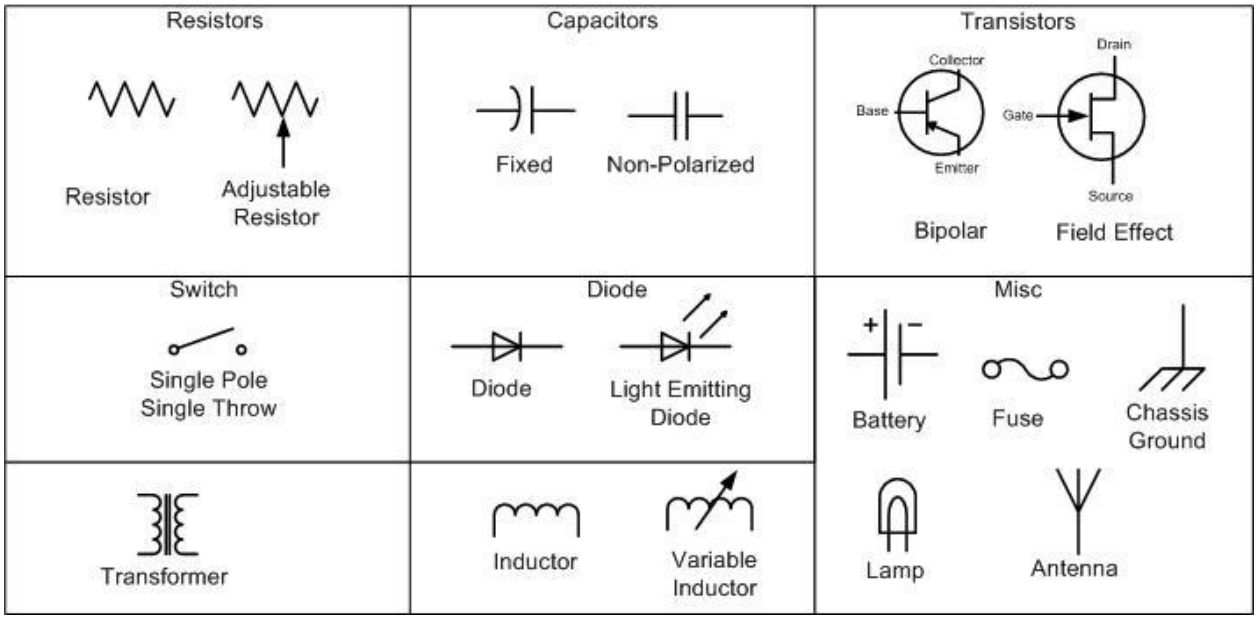
Most of the questions involve moving the decimal point 3 positions

Question	Answer	Operation
One microvolt	One one-millionth of a volt	
1,000,000 picofarads	1 microfarad	
One kilovolt	One thousand volts	Add 3 zeros (move decimal point right 3 positions)
3.525 MHz	3525 kHz	Add 3 zeros (move decimal point right 3 positions)
1,500,000 hertz	1500 kHz	Subtract 3 zeros (move decimal point left 3 positions)
500 milliwats	0.5 watts	Subtract 3 zeros (move decimal point left 3 positions)
2425 MHz	2.425 GHz	Subtract 3 zeros (move decimal point left 3 positions)
3000 milliampere	3 amperes	Subtract 3 zeros (move decimal point left 3 positions)
28,400 kHz	28.400 MHz	Subtract 3 zeros (move decimal point left 3 positions)

Micro	one millionth	10^{-6}	1/1,000,000
Milli	one thousandth	10^{-3}	1/1,000
Kilo	one thousand	10^{3}	1,000
Mega	one million	10^{6}	1,000,000
Giga	one billion	10^{9}	1,000,000,000

Amateur Radio Bands

HF	3 MHz	30 MHz
VHF	30 MHz	300 MHz
UHF	300 MHz	3000 MHz



Transistors – made up of three layers of semiconductor material. Function as a switch or amplifier
Capacitors- made of two conductors separated by an insulator. Stores energy in an electric field
Inductors- coil of wire. Stores energy in a magnetic field
Oscillator/tuned circuit/filter – capacitor and an inductor either in series or parallel
Diode- allows current flow in only one direction. Leads are Anode (+) and Cathode (-) [stripe]

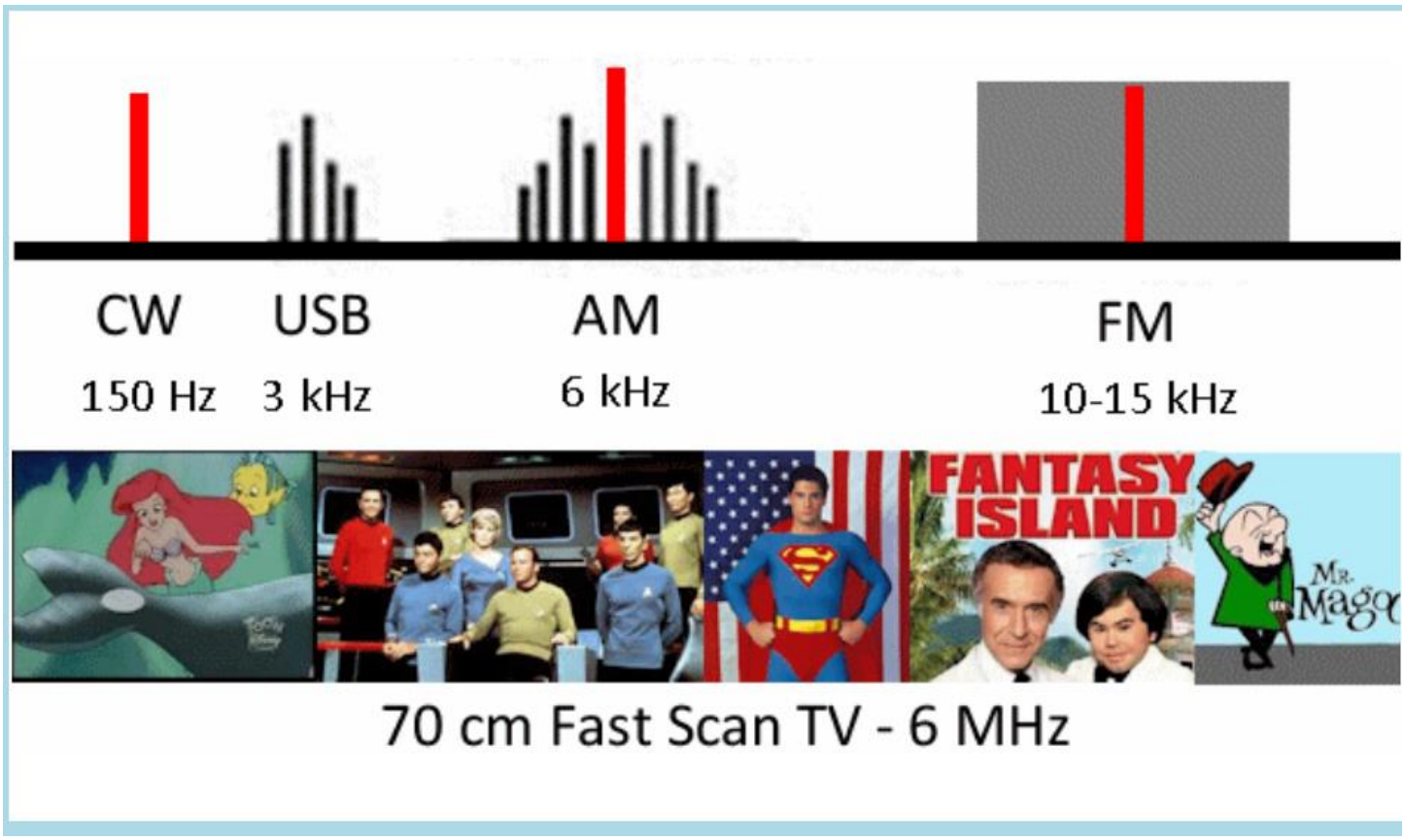
PHONETICS

ITU Phonetics

A = **ALPHA**
B = **BRAVO**
C = **CHARLIE**
D = **DELTA**
E = **ECHO**
F = **FOXTROT**
G = **GOLF**
H = **HOTEL**
I = **INDIA**
J = **JULIET**
K = **KILO**
L = **LIMA**
M = **MIKE**
N = **NOVEMBER**
O = **OSCAR**
P = **PAPA**
Q = **QUEBEC**
R = **ROMEO**
S = **SIERRA**
T = **TANGO**
U = **UNIFORM**
V = **VICTOR**
W = **WHISKEY**
X = **X-RAY**
Y = **YANKEE**
Z = **ZULU**

COMMON Q Codes

QRM	**Interference**
QRN	Static
QRO	Increase Power
QRP	Decrease Power
QRT	Stop Transmission
QRZ	Who is calling me?
QSB	Varying signal strength
QSL	Did you receive the message?
QSO	Communication, message
QSY	**Change frequency**
QTH	Location
QST	General call



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Web Resources

Emergency Amateur Radio Club of Hawaii	earchi.org
Ham Education	hameducation.org
Amateur Radio Emergency Service (Hawaii)	hawaiiares.net
Amateur Radio Relay League	arrl.net
Federal Communications Commission	fcc.gov
Department of Emergency Management	Honolulu.gov/dem
Ron Hashiro	qsl.net/ah6rh
Hawaii Repeaters	hawaiirepeaters.net
QRZ	qrz.com

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EHam	eham.net/reviews
Gigaparts	gigaparts.com (retail)
Ham Radio Outlet	hamradio.com (retail)
DX Engineering	dxengineering.com (retail)
Chirp (Free radio programming software	chirp.danplanet.com
Miklor	miklor.com (Chinese radio info)