

Tech exam cheat sheet

Abbreviations

QRM	Man made noise – interference from another station
QSY	Changing frequency (“I will QSY to 146.52”)
NCS	<u>N</u> et <u>C</u> ontrol <u>S</u> tation
HF	<u>H</u> igh <u>F</u> requency (3 to 30 MHz)
VHF	<u>V</u> ery <u>H</u> igh <u>F</u> requency (30 to 300 MHz)
UHF	<u>U</u> ltra <u>H</u> igh <u>F</u> requency (300 to 3000 MHz)
RIT	<u>R</u> eciever <u>I</u> ncremental <u>T</u> uning
RF	<u>R</u> adio <u>F</u> requency
MHz	<u>M</u> ega <u>H</u> ertz
PTT	<u>P</u> ush <u>T</u> o <u>T</u> alk
CTCSS	Sub-audible tone
VFO	<u>V</u> ariable <u>F</u> requency <u>O</u> scillator

Concepts








<u>D</u> irect <u>C</u> urrent	Current flow in one direction
<u>A</u> lternating <u>C</u> urrent	Current that reverses direction
Radio wave	Electromagnetic Energy
Gain	Ability to amplify a signal
Schematic	Electrical wiring diagram
Modulation	Combining speech with RF
Phone	Speech (e.g. not Morse code or a digital mode)
Wavelength	Distance RF travels in one complete cycle




Units

Voltage	<u>E</u> lectro <u>M</u> otive <u>F</u> orce (EMF)	Volts
Current	Flow of electrons	Amperes
Power	Rate at which electrical energy is used	Watts
Frequency	Alternating current “cycles per second”	Hertz
Impedance	Opposition to AC current	Ohms

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Devices

Fuse	Protect circuit from current overload	
FET	<u>F</u> ield <u>E</u> ffect <u>T</u> ransistor	
Diode	Allow current to flow in only one direction	
Switch/Relay	(dis)connect circuits	Switch 
LED	<u>L</u> ight <u>E</u> mitting <u>D</u> iode	
Lamp		
Battery		
Transformer	Change 120 house to lower AC voltage	
Antenna		
Transistor	<ul style="list-style-type: none"> Controls current flow. Electronic switch. Three layers of semiconductor material Amplify signals 	

Resistance (Resistor)	Opposes the flow of current in DC current	Ohms	
Potentiometer	Variable resistor	Ohms	
Capacitance (Capacitor)	<ul style="list-style-type: none"> Store Energy in Electric field. Two or more surfaces separated by an insulator 	Farad	
Inductance (Inductor)	<ul style="list-style-type: none"> Store Energy in Magnetic Field. Coil of wire 	Henry	Variable Inductor 