Advanced Volunteer Test (Level II)
(renamed Dec 9 2020)
Florida Baptist Disaster Relief PCC Communications Team Qualification
Version 1.2

Question No..	Area	Problem	Choices
1	Deployment	Using dishpointer.com find the magnetic azimuth and elevation angles for W116.8 Satmex 8 satellite from First Baptist Church, Tallahassee Florida	a) 231.5, 40.0 b) 236.5, 40.0 c) 92.9, -13.4 d) 97.9, -13.4
2	Deployment	Find a workable maidenhead locator for First Baptist Church, Tallahassee, Florida	a) EL89RQ b)EM90EH c) EM70UK d) EL95UO
3	Deployment	Insert the locator EL89RQ into your WINLINK system and find the closest RMS station with PACTOR, to your locator	a) KQ4ET b) AB4NX c) N4SER d) KX4Z
4	Department	Who is responsible for RADIO SYSTEMS' condition inside the trailer before deployment?	a) Marvin Corbin b) The ham radio PCC team c) Delton Beall d) Speaker of the House
5	Arrival	The magnetic heading of the satellite was computed to be 270degrees, elevation 45 degrees?. To which direction must there be a clear sky available?	a) East, above 40 degrees b) West, above 40 degrees c) South,, between 44 and 46 degrees d) West, below 35 degrees
6	Arrival	The metal tab on the shore power connector (coming fro the Generator) is for what connection?	a) 240 VAC b) Ground c) Neutral d) 120VAC
7	Arrival	Before deploying the satellite antenna controlling system, what must be done?	a) verify that the UPS battery is charged b) verify that there is no other internet available c) verify by visual inspection of the roof that movement of the satellite antenna system is unobstructed d) verify that the electrical power is 60Hz.
8	Networking	The current cell phone data modem account is with which vendor?	a) ATT b)Spring

			c) Verizon d) Cricket
9	Networking	The hardwired ethernet cabling for direct connection to the PCC is located where?	a) accessible via the front generator doors b) accessible via the generator fueling door c) accessible via the rear doors d) accessible via the roof

10	Networking	Using a computer in the PCC that it logged into the PCC (SSID) network,you execute the command
		`tracert whitehouse.gov`
		and the results show
		`1    2 ms    1 ms    1 ms  my.usb`
		`[192.168.1.1]`
		`2  600 550 650 xyz.prx`
		`[204.198.10.177]`
		`3 * * *`
		`4 * * *`
		`5 * * *`
		…
		…
		What system is being used for your networking?
			a) Sprint
			b) Verizon
			c) geosynchronous satellite
			d) low-earth-orbit satellite

11	Networking	Your cellular data modem is plugged into USB #1 of the Cradlepoint fail-over router and there is ONE blinking green light on the cellular data modem. The farthest light on the Cradlepoint is RED. What is going on?	a) Your internet speed is excessive. b) Your networking load has overwhelmed the system c) Your cellular data modem is seeing interference from the satellite system d) Your cellular data modem has not yet made a data connection to its provider

12.	Networking	The satellite system is inoperative and someone has "adjusted" some of ethernet jumper cables on the left rack system. Using a computer in the PCC connected to the wifi system PCC (SSID) you execute the command
		`tracert foxnews.com`
		and the result shows
		
		`1    2 ms    1 ms    1 ms`
		`my.usb [192.168.1.1]`
		`2 * * *`
		`3 * * *`
		`4 * * *`
		`5 * * *`
			a) The cellular data modem has failed
			b) The Enterprise Router has failed
			c) The Cradlepoint router has been disconnected from the Enterprise Router WAN input
			d) The Cradlepoint router has been programmed to only use cellular data.

		What is going on? ...	

13	Networking	The USB730L cellular modem has two green lights, the far right light on the Cradlepoint is yellow, you cannot find any working internet through the PCC (SSID) wifi system, the satellite modem was stolen, you've patiently waited 5 minutes, and a traceroute to the IP number of foxnews.com shows the following:
		
		`1     2 ms     1 ms     1 ms`
		`my.usb [192.168.1.1]`
		2 * * *
		3 * * *
		4 * * *
		5 * * *
		
		What might be a good next step?
			a) Plug the USB730L cellular modem into the opposite USB slot on the Cradlebpoint MRB1200B
			b) power down and then power up the Enterprise Router and Cradlepoint router since they aren't talking to each other
			c) try a ping to foxnews.com
			d) reprogram the Enterprise router

14	Repeater	The repeater is on roughly what frequency, part of which radio band?	a) 465 MHz, UHF b) 146 MHz, VHF c) 800 MHz, UHF d) 12 GHz, SHF
15	Repeater	The range of a 25 foot repeater antenna to a person holding their radio at waist level is approximately how many miles of open terrain?	a) 1 mile b) 5 miles c) 10 miles d) 12 miles
16	HF	During the afternoon, to contact a station 200-400 miles away, which amateur radio band would be most useful?	a) 80 meters b) 40 meters c) 20 meters d) 160 meters
17	HF	What is a FAST data rate for HF PACTOR, ARDOP, or VARA data communications?	a) 100 bits per second b) 1000 bits per second c) 10,000 bits per second d) 100,000 bits per second
18	HF	Which antenna would be best for contacting the State EOC from 200 miles away on HF?	a) vertical antenna b) whip antenna with a screwdriver tuner c) sloping end-fed antenna with 49:1 balun going to a tree limb about 30 feet up d) 4 element beam at 90 feet
19	HF	The wattmeter shows that your output power is approximately 1 watt on 40	a) USB MOD level may be set to 5%

		meters when attempting an ARDOP connection on 40 meters. You are having problems making a connection. What might be the problem?	b) ACC/USB AF output level may be set to 5% c) Power level may be set to LO d) (a) or (c)
20	HF	The computer isn't properly sending information to the PACTOR modem. What might be the problem?	a) the USB connector to the 7300 has come loose b) the bluetooth connection from the computer is set to the wrong speed c) the PACTOR modem has not paired with the computer d) possible (b) and/or (c)
21	Repeater	The repeater isn't working for users. What might be the problem?	a) The right bottom rack 13.8 VDC power supply isn't turned on. b) The left upper repeater enable button has not been pressed c) The volume knob on the top repeater radio is turned too low. d) The volume knob on the bottom repeater radio is turned too low.
22	WINLINK	Send a winlink email from a winlink application to KX4Z@WINLINK.ORG	a) I succeeded in sending the email b) I don't have a winlink account c) I could not get the email to transmit d) All circuits were busy