G1C07 (D) p.58 [97.305(c), 97.307(f)(3)]
What is the maximum symbol rate permitted for RTTY or data emission transmission on the 20-meter band?
A. 56 kilobaud
B. 19.6 kilobaud
C. 1200 baud
D. 300 baud

G1C08 (D) p.58 [97.307(f)(3)]
What is the maximum symbol rate permitted for RTTY or data emission transmitted at frequencies below 28 MHz?
A. 56 kilobaud
B. 19.6 kilobaud
C. 1200 baud
D. 300 baud

G1C09 (A) p.58 [97.305(c) and 97.307(f)(5)]
What is the maximum symbol rate permitted for RTTY or data emission transmitted on the 1.25-meter and 70-centimeter bands?
A. 56 kilobaud
B. 19.6 kilobaud
C. 1200 baud
D. 300 baud

G1C10 (C) p.58 [97.305(c) and 97.307(f)(4)]
What is the maximum symbol rate permitted for RTTY or data emission transmissions on the 10-meter band?
A. 56 kilobaud
B. 19.6 kilobaud
C. 1200 baud
D. 300 baud

G1C11 (B) p.58 [97.305(c) and 97.307(f)(5)]
What is the maximum symbol rate permitted for RTTY or data emission transmissions on the 2-meter band?
A. 56 kilobaud
B. 19.6 kilobaud
C. 1200 baud
D. 300 baud

G1E03 (A) p.62 [97.221]
What is required to conduct communications with a digital station operating under automatic control outside the automatic control band segments?
A. The station initiating the contact must be under local or remote control
B. The interrogating transmission must be made by another automatically controlled station
C. No third party traffic maybe be transmitted
D. The control operator of the interrogating station must hold an Extra
Class license

G1E11 (C) p.62 [97.221]
Which of the following is the FCC term for an unattended digital station that transfers messages to and from the Internet?
A. Locally controlled station
B. Robotically controlled station
C. Automatically controlled digital station
D. Fail-safe digital station

G1E12 (A) p.62 [97.115]
Under what circumstances are messages that are sent via digital modes exempt from Part 97 third party rules that apply to other modes of communication?
A. Under no circumstances
B. When messages are encrypted
C. When messages are not encrypted
D. When under automatic control

G1E13 (D) p.62 [97.221, 97.305]
On what bands may automatically controlled stations transmitting RTTY or data emissions communicate with other automatically controlled digital stations?
A. On any band segment where digital operation is permitted
B. Anywhere in the non-phone segments of the 10-meter or shorter wavelength bands
C. Only in the non-phone Extra Class segments of the bands
D. Anywhere in the 1.25-meter or shorter wavelength bands, and in specified segments of the 80-meter through 2-meter bands

G2E01 (D) p.57
Which mode is normally used when sending an RTTY signal via AFSK with an SSB transmitter?
A. USB
B. DSB
C. CW
D. LSB

G2E02 (B) p.59
How can a PACTOR modem or controller be used to determine if the channel is in use by other PACTOR stations?
A. Unplug the data connector temporarily and see if the channel-busy indication is turned off
B. Put the modem or controller in a mode which allows monitoring communications without a connection
C. Transmit UI packets several times and wait to see if there is a response from another PACTOR station
D. Send the message: "Is this frequency in use?"

G2E03 (D) p.59
What symptoms may result from other signals interfering with a PACTOR or WINMOR transmission?
A. Frequent retries or timeouts
B. Long pauses in message transmission
C. Failure to establish a connection between stations
D. All of these choices are correct

G2E04 (B) p.54
What segment of the 20-meter band is most often used for digital transmissions?
A. 14.000 - 14.050 MHz
B. 14.070 - 14.100 MHz
C. 14.150 - 14.225 MHz
D. 14.275 - 14.350 MHz

G2E05 (B) p.61
What is the standard sideband used to generate a JT65 or JT9 digital signal when using AFSK in any amateur band?
A. LSB
B. USB
C. DSB
D. SSB

G2E06 (B) p.57
What is the most common frequency shift for RTTY emissions in the amateur HF bands?
A. 85 Hz
B. 170 Hz
C. 425 Hz
D. 850 Hz

G2E07 (A) p.54
What segment of the 80-meter band is most commonly used for digital transmissions?
A. 3570 – 3600 kHz
B. 3500 – 3525 kHz
C. 3700 – 3750 kHz
D. 3775 – 3825 kHz

G2E08 (D) p.61
In what segment of the 20-meter band are most PSK31 operations commonly found?
A. At the bottom of the slow-scan TV segment, near 14.230 MHz
B. At the top of the SSB phone segment, near 14.325 MHz
C. In the middle of the CW segment, near 14.100 MHz
D. Below the RTTY segment, near 14.070 MHz

G2E09 (C) p.59
How do you join a contact between two stations using the PACTOR protocol?
A. Send broadcast packets containing your call sign while in MONITOR mode
B. Transmit a steady carrier until the PACTOR protocol times out and disconnects
C. Joining an existing contact is not possible, PACTOR connections are limited to two stations
D. Send a NAK response continuously so that the sending station has to pause

G2E10 (D) p.59
Which of the following is a way to establish contact with a digital messaging system gateway station?
A. Send an email to the system control operator
B. Send QRL in Morse code
C. Respond when the station broadcasts its SSID
D. Transmit a connect message on the station's published frequency

G2E11 (D) p.61
What is indicated on a waterfall display by one or more vertical lines adjacent to a PSK31 signal?
A. Long Path propagation
B. Backscatter propagation
C. Insufficient modulation
D. Overmodulation

G2E12 (C) p.61
Which of the following describes a waterfall display?
A. Frequency is horizontal, signal strength is vertical, time is intensity
B. Frequency is vertical, signal strength is intensity, time is horizontal
C. Frequency is horizontal, signal strength is intensity, time is vertical
D. Frequency is vertical, signal strength is horizontal, time is intensity

G2E13 (A) p.59
Which communication system sometimes uses the Internet to transfer messages?
A. Winlink
B. RTTY
C. ARES
D. Skywarn

G2E14 (D) p.58
What could be wrong if you cannot decode an RTTY or other FSK signal even though it is apparently tuned in properly?
A. The mark and space frequencies may be reversed
B. You may have selected the wrong baud rate
C. You may be listening on the wrong sideband
D. All of these choices are correct

G8A01 (B) p.57
How is an FSK signal generated?
A. By keying an FM transmitter with a sub-audible tone
B. By changing an oscillator's frequency directly with a digital control signal
C. By using a transceiver's computer data interface protocol to change frequencies
D. By reconfiguring the CW keying input to act as a tone generator

G8B05 (D) p.59
What is the approximate bandwidth of a PACTOR3 signal at maximum data rate?
A. 31.5 Hz
B. 500 Hz
C. 1800 Hz
D. 2300 Hz

G8B08 (B) p.61
Why is it important to know the duty cycle of the mode you are using when transmitting?
A. To aid in tuning your transmitter
B. Some modes have high duty cycles which could exceed the transmitter's average power rating.
C. To allow time for the other station to break in during a transmission
D. All of these choices are correct

G8B10 (B) p.58
What is the relationship between transmitted symbol rate and bandwidth?
A. Symbol rate and bandwidth are not related
B. Higher symbol rates require wider bandwidth
C. Lower symbol rates require wider bandwidth
D. Bandwidth is always half the symbol rate

G8C01 (B) p.61
Which of the following digital modes is designed to operate at extremely low signal strength on the HF bands?
A. FSK441 and Hellschreiber
B. JT9 and JT65
C. Clover
D. RTTY

G8C02 (A) p.60
How many data bits are sent in a single PSK31 character?
A. The number varies
B. 5
C. 7
D. 8

G8C03 (C) p.55
What part of a data packet contains the routing and handling information?
A. Directory
B. Preamble
C. Header
D. Footer

G8C04 (C) p.56
Which of the following describes Baudot code?
A. A 7-bit code with start, stop and parity bits
B. A code using error detection and correction
C. A 5-bit code with additional start and stop bits
D. A code using SELCAL and LISTEN

G8C05 (A) p.59
In the PACTOR protocol, what is meant by an NAK response to a transmitted packet?
A. The receiver is requesting the packet be retransmitted
B. The receiver is reporting the packet was received without error
C. The receiver is busy decoding the packet
D. The entire file has been received correctly

G8C06 (B) p.59
What action results from a failure to exchange information due to excessive transmission attempts when using PACTOR or WINMOR?
A. The checksum overflows
B. The connection is dropped
C. Packets will be routed incorrectly
D. Encoding reverts to the default character set

G8C07 (B) p.55
How does the receiving station respond to an ARQ data mode packet containing errors?
A. It terminates the contact
B. It requests the packet be retransmitted
C. It sends the packet back to the transmitting station
D. It requests a change in transmitting protocol

G8C08 (B) p.60
Which of the following statements is true about PSK31?
A. Upper case letters make the signal stronger
B. Upper case letters use longer Varicode signals and thus slow down transmission
C. Varicode Error Correction is used to ensure accurate message reception
D. Higher power is needed as compared to RTTY for similar error rates

G8C09 (A) p.60
What does the number 31 represent in "PSK31"?
A. The approximate transmitted symbol rate
B. The version of the PSK protocol
C. The year in which PSK31 was invented
D. The number of characters that can be represented by PSK31

G8C10 (C) p.56
How does forward error correction (FEC) allow the receiver to correct errors in received data packets?
A. By controlling transmitter output power for optimum signal strength
B. By using the varicode character set
C. By transmitting redundant information with the data
D. By using a parity bit with each character

G8C11 (D) p.57
How are the two separate frequencies of a Frequency Shift Keyed (FSK) signal identified?
A. Dot and Dash
B. On and Off
C. High and Low
D. Mark and Space

G8C12 (A) p.60
Which type of code is used for sending characters in a PSK31 signal?
A. Varicode
B. Viterbi
C. Volumetric
D. Binary