Section 2.4

G1C07 (D) [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) [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) [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) [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) [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
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G1C13 (C) [97.309(a)(4)]
What must be done before using a new digital protocol on the air?
A. Type-certify equipment to FCC standards
B. Obtain an experimental license from the FCC
C. Publicly document the technical characteristics of the protocol
D. Submit a rule-making proposal to the FCC describing the codes and methods of the technique
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G1E03 (A) [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 Amateur Extra Class license
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G1E09 (A) [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
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G1E11 (D) [97.221, 97.305]
On what bands may automatically controlled stations transmitting RTTY or data emissions communicate with other automatically controlled digital station?
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 6-meter or shorter wavelength bands, and in limited segments of some of the HF bands
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G2E01 (D)
Which mode is normally used when sending RTTY signals via AFSK with an SSB transmitter?
A. USB
B. DSB
C. CW
D. LSB
~~

G2E04 (B)
What segment of the 20-meter band is most often used for digital transmissions (avoiding the DX propagation beacons)?
A. 14.000 - 14.050 MHz
B. 14.070 - 14.112 MHz
C. 14.150 - 14.225 MHz
D. 14.275 - 14.350 MHz
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G2E06 (B)
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)
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
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G2E14 (D)
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 these choices are correct
~~

G8A01 (B)
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
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G8B08 (B)
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 that could exceed the transmitter's average power rating
C. To allow time for the other station to break in during a transmission
D. The attenuator will have to be adjusted accordingly
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G8B10 (B)
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
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G8C03 (C)
What part of a packet radio frame contains the routing and handling information?
A. Directory
B. Preamble
C. Header
D. Footer
~~

G8C04 (C)
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
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G8C07 (B)

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
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G8C10 (C)
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
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G8C11 (D)
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
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