Unit 1.5 Amateur Radio: Digital Modes

When hams talk about "digital modes," we are talking about modes that send digital data rather than voice or other types of analog signals, such as television. Usually, we connect our transceivers to a computer to modulate and demodulate the digital signals, but some newer transceivers can do this internally.

All of these choices are examples of a digital communications method. (T8D01):
- Packet
- PSK31
- MFSK

Packet radio was one of the first digital modes. It is called packet radio because the data to be sent from station to station is separated into a number of packets which are then sent separately by the transmitting station and received and re-assembled by the receiving station.

All of these choices are correct when talking about what may be included in a packet transmission (T8D08):
- A check sum which permits error detection
- A header which contains the call sign of the station to which the information is being sent
- Automatic repeat request in case of error

Some amateur radio digital communications systems use protocols which ensure error-free communications. One such system is called an automatic repeat request, or ARQ, transmission system. An ARQ transmission system is a digital scheme where the receiving station detects errors and sends a request to the sending station to retransmit the information. (T8D11)

APRS is one service that uses packet radio. The term APRS means Automatic Packet Reporting System. (T8D02) A Global Positioning System receiver is normally used when sending automatic location reports via amateur radio. (T8D03) Providing real time tactical digital communications in conjunction with a map showing the locations of stations is an application of APRS (Automatic Packet Reporting System). (T8D05)

A popular digital mode on the HF bands is PSK. The abbreviation PSK means Phase Shift Keying. (T8D06) PSK31 is a low-rate data transmission mode. (T8D07) The "31" in PSK31 comes from the fact that data is transmitted and received at about 31 baud and that the bandwidth of a PSK31 signal is only about 31 Hz.

QUESTION POOL: (8)

T8D01	T8D08	T8D11	T8D02
T8D03	T8D05	T8D06	T8D07