

## Lesson 11 – QUESTIONS

- Q1 What is a modulator?
- Q2 What is high level and low level modulation?
- Q3 Draw and label a block diagram of a simple CW transmitter.
- Q4 What are key clicks and chirps
- Q5 How are the key clicks eliminated?
- Q6 What are the five types of modulation used by amateur operators?
- Q7 Draw and label a block diagram of a simple AM transmitter.
- Q8 Draw an AM carrier wave modulated to 100%.
- Q9 Draw an AM carrier wave modulated to 50%.
- Q10 An AM signal has an amplitude of 7 V peak and the modulation signal had a peak of 3.3 V. What is the AM modulation index?
- Q11 Draw and label a block diagram of a simple SSB transmitter.
- Q12 What is a balanced modulator and why is it used?
- Q13 What is the amateur operator convention for when to use USB and LSB?
- Q14 Draw and label a block diagram of a simple FM transmitter.
- Q15 A FM signal with a carrier at 144MHz has a signal deviating the carrier by +- 100 KHz. What is the frequency modulation index?

- Q16 What bandwidth is occupied by a FM signal if a 2 KHz tone deviates the carrier by 100KHz?
- Q17 What is a VFO?
- Q18 Draw a block diagram of a PLL and explain its operation.
- Q19 What is DDS?
- Q20 Why would a designer use a frequency doubler or tripler?
- Q21 Explain the measurement of peak envelope power.
- Q22 What is a linear amplifier and why are they used?
- Q23 Where would an amateur operator find the emission modes for amateur use?
- Q24 What is the ALC?
- Q25 What duty cycle does RTTY transmission occupy?