Unit 14 – 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 peek 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?~~

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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 Whare would an amateur operator find the emission modes for amateur use?

Q24 What is the ALC?

Q25 What duty cycle does RTTY transmission occupy?

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