Jules' Workshop

Standard

Unit 13 – QUESTIONS

Q1 What are the three criteria for a receiver? Explain each criterion.

Q2 What is Thermal Noise?

Q3 ~~What is the thermal noise voltage at 290deg K for a 10 kHz bandwidth and a 50-ohm load?~~

Q4 Name and explain the three basic receiver configurations.

Q5 Draw the block diagram of a superheterodyne receiver.

Q6 Why must the local oscillator and RF stage be tuned in tandem?

Q7 If the RF signal is fc and the oscillator frequency is fo, what are the two possibilities at the output of the mixer?

Q8 What is an image frequency?

Q9 What is an IF frequency and why is it used?

Q10 Name the seven types of demodulators?

Q11 Explain the slope detector?

Q12 Why use a double superheterodyne receiver?

Q13 ~~What is the signal to noise ratio of a 50 uV signal and the noise level of 1 uV?~~

Q14 What is AGC and how does it work?

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Q15 What is an S meter and what level is required for S9?

Q16 Why is a limiter needed?

Q17 What is phase noise?

Q18 What is a low noise amplifier?

Q19 What is de-emphasis?

Q20 Draw block diagrams for the following receivers.

CW

SSB

AM

FM

Q21 Why do aircraft communications use AM and not FM?

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