Fabian

1995 Quals Questions - Pease

physics

- Define Inductance.
- 2. Write down the expression for the impedance of an inductor (phase or notation).
- 3. Why is a coil a suitable shape for an inductor?
 - Bring out a moving coil loudspeaker
- 4. How does this loudspeaker work?
- 5. Over what range of frequencies?
- 6. What is printed on the loudspeaker ("8 ohms, 0.5W")?
- 7. Why does it say '8 ohms' without reference to frequency (given that the electrical component is a coil)?
- 8. Why does it say '0.5W' when you cannot dissipate power in an inductor?
- 9. How would you relate the mechanical work done by the cone to the electrical characteristics of the loudspeaker?