



SHEET NO (3)

Q1) What is ultrasound and what are its characteristics?

Q2) Discuss in details the components of ultrasound machine?

Q3) Discuss in details the theory of work of the ultrasound machine?

Q4) What are the advantages and disadvantages of using ultrasound in ultrasound machines?

Q5) Discuss in details the applications of ultrasound in the following fields:-

- **Echolocation.**
- **Medicine.**
- **Engineering.**

Q6) If a siren of an ambulance emits sound with a frequency of 700 Hz and you are standing on the pavement. If the ambulance drives past you at a speed of 20 m/s what frequency will you hear?

- **When the ambulance is approaching you.**
- **When the ambulance is driving away from you.**