

## G.4

21. Application of a pressure  $P$  on a substance with density  $\rho$  and bulk modulus  $B$  will cause its density to change by
- (A)  $\rho P/B$ .
  - (B)  $\rho B/P$ .
  - (C)  $P/\rho B$ .
  - (D)  $B/\rho P$ .
22. A possible donor impurity in silicon is
- (A) Boron.
  - (B) Antimony.
  - (C) Nitrogen.
  - (D) Phosphorous.
23. The upthrust on a body totally immersed in a liquid depends on its
- (A) mass.
  - (B) density.
  - (C) volume.
  - (D) shape.
24. Zener diode can be used as
- (A) an amplifier.
  - (B) an oscillator.
  - (C) a voltage regulator.
  - (D) all of the above.
25. The phase difference between the collector-emitter voltage and the input signal of a transistor in a CE amplifier is
- (A)  $0^\circ$ .
  - (B)  $90^\circ$ .
  - (C)  $180^\circ$ .
  - (D)  $270^\circ$ .