

Physics

- 1-Define the term electrical conductivity of a metallic wire. Write its SI unit.
- 2-Define the term mobility of charge carriers in a conductor. Write its SI unit.
- 3-Write a relation between current and drift velocity of electrons in a conductor. Use this relation to explain how the resistance of a conductor changes with the rise in temperature
- 4-When electrons drift in a metal from lower to higher potential, does it mean that all the free electrons of the metal are moving in the same direction?

Biology

1. Which part of ovary in mammals acts as an endocrine gland after ovulation?
(a) Stroma
(b) Germinal epithelium
(c) Vitelline membrane
(d) Graafian follicle
2. The female external genitalia include
(i) Ovary (ii) Mammary gland
(iii) Mons pubis (iv) Clitoris
(a) (i) and (ii) (b) (ii) and (iii)
(c) (iii), (iv) and (v) (d) (ii), (iii) and (v)
3. $2n = 16$ is in a primary spermatocyte which is in metaphase of first meiotic division. What shall be the total number of chromatids in each of the secondary spermatocyte?
(a) 16 (b) 24
(c) 32 (d) 8
4. In humans, at the end of the first meiotic division, the male germ cells differentiate into the
(a) spermatids
(b) spermatogonia
(c) primary spermatocytes
(d) secondary spermatocytes
5. The sperms undergo physiological maturation, acquiring increased motility and fertilizing capacity in
(a) seminiferous tubules
(b) vasa efferentia
(c) epididymis
(d) vagina

English

Design an invitation card for the invitation of a book fair to be held in your school campus, insert necessary details.