



DAILY GENERAL STUDIES QUIZ

Saturday, 11 March 2023

PHYSICS

1. Who invented the thermos flask?

- (A) Ray Tomlinson
- (B) Tim Berners-Lee
- (C) William Cullen
- (D) James Dewar

2. An electron and a proton are circulating with same speed in circular paths of equal radius. Which one among the following will happen, if the mass of a proton is about 2,000 times that of an electron?

- (a) The centripetal force required by the electron is about 2,000 times more than that required by the proton.
- (b) The centripetal force required by the proton is about 2,000 times more than that required by the electron.
- (c) No centripetal force is required for any charged particle.
- (d) Equal centripetal force acts on both the particles as they rotate in the same circular path.

3. Sodium is the sixth most abundant element in the Earth's crust and exists in numerous minerals such as feldspars, sodalite, and rock salt (NaCl). Sodium metal should be stored in

- (A) Alcohol
- (B) Kerosene oil
- (C) Water
- (D) Hydrochloric acid

4. The upper and lower portions in common type of bi-focal lenses are respectively _____.

- (A) concave and convex
- (B) convex and concave
- (C) both concave of different focal lengths
- (D) both convex of different focal lengths

5. Tungsten is used for the construction of

filament in electric bulb because of its _____.

- (A) High melting point
- (B) Low specific resistance
- (C) High light emitting power
- (D) High specific resistance

6. In the phenomenon of dispersion of light, the light wave of shortest wavelength is

- (A) accelerated and refracted the most
- (B) slowed down and refracted the most
- (C) accelerated and refracted the least
- (D) slowed down and refracted the least

7. A moderator is a material with a mass not too much more than the mass of a neutron such that, when a neutron collides with it, the neutron will lose energy (slow down). Carbon or Graphite rods are used in atomic reactors as moderators for sustained nuclear chain reaction through nuclear fission process. In this process

- (A) The neutrons are made fast
- (B) The protons are made fast
- (C) The neutrons are made slow
- (D) The protons are made slow

8. For a harmonic oscillator, the graph between momentum p and displacement q would come out as.

- (A) A straight line
- (B) A parabola
- (C) A circle
- (D) An ellipse

9. In step-down transformer, the AC output gives the-

- (A) Current more than the input current
- (B) Current less than the input current
- (C) Current equal to the input current
- (D) Voltage more than the input voltage

1-{D} - 2-{B} - 3-{B} - 4-{A} - 5-{A} - 6-{B} - 7-{C} - 8-{D} - 9-{D}