

SSUUGCET

BSC (HONS) PHYSICS / BSC (HONS) ENVIRONMENTAL STUDIES

SAMPLE QUESTIONS

1. A 40 kg man pushes a 75 kg wood block by a force of 40 N. The 75 kg wood block pushed the man with a force of
 - a. 40 N
 - b. 0 N
 - c. 60 N
 - d. 20 N
2. A metal bob of mass 20 gm is attached at one end of a vertically hanging string. Find the force exerted by the string on the bob.
 - a. 200 N acting vertically downward
 - b. 0.25 N acting vertically upward
 - c. 0.2 N acting vertically downward
 - d. 0.2 N acting vertically upward
3. In SI unit, the dimension of force is
 - a. MLT^2
 - b. $M^{-1}LT^{-2}$
 - c. MLT^{-2}
 - d. MLT^4
4. The displacement y of a sound wave travelling in the x -direction is given by $y=20\cos(10t-2x)$. The angular frequency of the wave motion is
 - a. 100 Hz
 - b. 50 Hz
 - c. 10 Hz
 - d. 0 Hz
5. Sodium chloride crystal is the example of
 - a. Metallic bonding
 - b. Ionic bonding
 - c. Covalent bonding
 - d. Van der Waals bonding

6. When the outermost orbit of an atom has more than four electrons, the material is generally a
- a. Non-metal
 - b. Metal
 - c. Semiconductor
 - d. Cannot say
7. Amount of charge carried by an electron is
- a. 0C
 - b. $1.6 \times 10^{23}\text{C}$
 - c. $1.6 \times 10^{-23}\text{C}$
 - d. $2.6 \times 10^{-23}\text{C}$
8. Which statement is correctly associated with the photoelectric effect?
- a. emission of electrons from any materials
 - b. emission of electrons from polymers only
 - c. emission of photons from metals only
 - d. emission of electrons from metals only
9. The unit of the capacitance is
- a. Ohm
 - b. Henry
 - c. Farad
 - d. None of the above
10. A radioactive sample has a half-life of 5 years. What fraction of the sample is left after 10 years?
- a. $1/2$
 - b. $1/4$
 - c. $1/8$
 - d. $1/16$