

## 1.2 Branches of Physics

### Part Two

#### True / False Questions

1. Mechanics is only concerned with microscopic particles.
2. Acoustics studies how sound is produced, transmitted, and perceived.
3. Optics includes reflection, refraction, and diffraction of light.
4. Thermodynamics studies only electricity.
5. Electromagnetism explains the behavior of electric and magnetic fields.
6. Nuclear fusion refers to splitting of nuclei.
7. Fiber optics is an application of acoustics.
8. Ultrasound medical imaging is an application of acoustics.
9. Nuclear physics plays a role in power generation.
10. Electromagnetism has no role in communication systems.

**Match The terms in Column “A” with descriptions in column “B”. Put the correct numbers in the space provided**

#### Column A (Branches of Physics)

#### Column B (Descriptions / Applications)

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|--------------|----------------------------------------------------------|
| 1. Mechanics | .....A. Deals with motion, forces, and energy of objects |
|--------------|----------------------------------------------------------|

- |                        |                                                                   |
|------------------------|-------------------------------------------------------------------|
| 2. Quantum Mechanics   | .....B. Explains microscopic particles like Electrons and protons |
| 3. Acoustics           | .....C. The study of sound waves and vibrations                   |
| 4. Optics              | .....D. The study of light, lenses, mirrors, and its properties   |
| 5. Thermodynamics      | ..... E. Heat, temperature, and energy transformations            |
| 6. Electromagnetism    | .....F. Interaction between electricity and magnetism             |
| 7. Nuclear Physics     | .....G. Study of the atomic nucleus and its reactions             |
| 8. Classical Mechanics | .....H. Motion of large, visible objects like cars and planets    |
| 9. Ultrasound          | .....I. Application of acoustics in medicine for imaging          |
| 10. Reflection         | .....J. Bouncing back of light from a surface                     |
| 11. Nuclear Fusion     | .....K. Combination of two light nuclei into one heavier nucleus  |
| 12. Nuclear Fission    | .....L. Splitting of a heavy nucleus into smaller nuclei          |