

## Worksheet: Electromagnetic Waves

Maharashtra State Board · Class 12 · Physics · 5 questions · 12 marks

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score: \_\_\_\_\_ / 12

**Q1.** A capacitor is charged at 2 A. Find the displacement current between its plates. *[2 marks]*

---

---

---

**Q2.** An EM wave has frequency  $1 \times 10^{10}$  Hz. Find its wavelength in air. *[2 marks]*

---

---

---

**Q3.** Arrange in increasing wavelength: X-rays, visible light, radio waves, IR. *[2 marks]*

---

---

---

**Q4.** An EM wave has  $B_0 = 1 \times 10^{-6}$  T. Find  $E_0$  and the average intensity. *[3 marks]*

---

---

---

**Q5.** A 100 W bulb emits uniformly. Find the intensity at 1 m. *[3 marks]*

---

---

---