OPEN STUDENT FOUNDATION
Physics (Class 12)
PRACTICE SHEET DAY 8

CHAPTER 08 | Date : 24/02/24

Section A

- **Write the answer of the following questions. [Each carries 1 Mark]** **[6]**

1. A plane electromagnetic wave of frequency 25 MHz travels in free space along x-direction. At a particular point in space and time, $\vec{E} = 6.3\hat{j}\ \text{Vm}^{-1}$. What is $\vec{B}$ at this point ?
2. A radio can tune into any station in the 7.5 MHz to 12 MHz band. What is the corresponding wave length band ?
3. Write four characteristics of electromagnetic waves.
4. Write any four pointsfor infrared waves.
5. What are Maxwell's equation ? Write Maxwell's four equation in terms of electromagnetic waves.
6. The magnetic field in a plane electromagnetic wave is given by $B_y = (2 \times 10^{-7})$ T sin $(0.5 \times 10^3 x + 1.5 \times 10^{11} t)$.
   (a) What is the wavelength and frequency of the wave ?
   (b) Write an expression for the electric field.

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Section [A] : 1 Marks Questions					
No	Ans	Chap	Sec	Que	Universal_QueId
1.	-	Chap 8	S8	1	QP23P11B1211_P1C8S8Q1
2.	-	Chap 8	S8	2	QP23P11B1211_P1C8S8Q2
3.	-	Chap 8	S8	3	QP23P11B1211_P1C8S8Q3
4.	-	Chap 8	S8	4	QP23P11B1211_P1C8S8Q4
5.	-	Chap 8	S10	20	QP23P11B1211_P1C8S10Q20
6.	-	Chap 8	S10	22	QP23P11B1211_P1C8S10Q22

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