



(2) At a point on the surface of the sphere

<b>Q-5</b>	<b>Attempt all questions</b>	<b>(14)</b>
<b>a</b>	Explain Hall effect in detail	<b>08</b>
<b>b</b>	Deduce the relation between Magnetic Susceptibility and Permeability	<b>06</b>
<b>Q-6</b>	<b>Attempt all questions</b>	<b>(14)</b>
<b>a</b>	Differentiate between Paramagnetic and Diamagnetic Substances	<b>07</b>
<b>b</b>	Discuss on the term Hysteresis Loop in detail	<b>07</b>
<b>Q-7</b>	<b>Attempt all questions</b>	<b>(14)</b>
<b>a</b>	Explain in detail Ferro magnetic materials	<b>06</b>
<b>b</b>	Give an account on energy loss due to hysteresis	<b>08</b>
<b>Q-8</b>	<b>Attempt all questions</b>	<b>(14)</b>
<b>a</b>	Differentiate between Self and Mutual Inductance, derive $M = \sqrt{L_1 L_2}$ , where M is mutual inductance, $L_1$ and $L_2$ are self-inductances of two coils.	<b>07</b>
<b>b</b>	Write a note on magnetic field due to a current carrying conductor	<b>07</b>

