PHYSICS

111. (1)

Resistance $R = \frac{\Delta V}{\Delta I}$ which is negative in region AB.

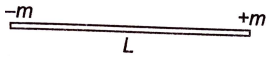
112. (3)

$V_y - V_x = (20 + 5)(0.1) = 2.5$ V

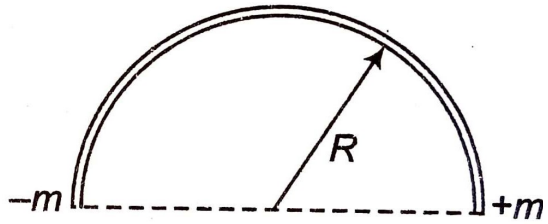
113. (2)

114. (4)

Here, $\frac{E_1 + E_2}{E_1 - E_2} = \frac{5}{10}$

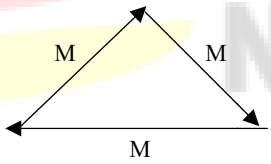


$\Rightarrow \frac{2E_1}{2E_2} = \frac{50+10}{50-10} = \frac{60}{40} \Rightarrow \frac{E_1}{E_2} = \frac{3}{2}$



115. (2)

Resultant dipole moment of the system = 0



116. (4)

117. (4)

118. (4)

119. (1)

120. (2)