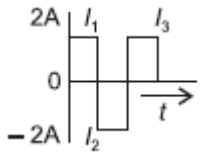
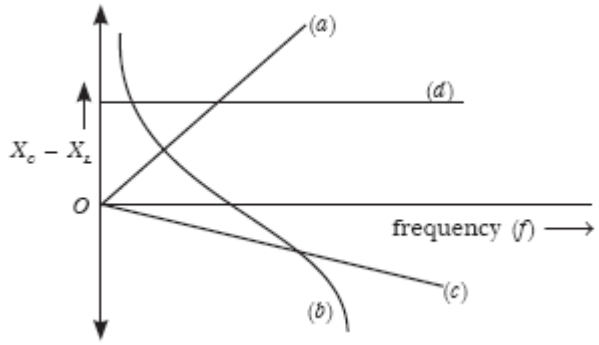
O P JINDAL SCHOOL, SAVITRINAGAR

ASSIGNMENT

CLASS XII PHYSICS

1	Why is the use of ac voltage preferred over dc voltage?	1
2	The peak value of emf in ac is E_0. Write its (i) rms, and (ii) average value over a complete cycle.	1
3	The current flowing through a pure inductor of inductance 4mH is $i = 12 \cos 300\ t$ ampere. What is (i) rms, and (ii) average value of the current for a complete cycle?	1
4	Calculate the rms value of the alternating current shown in the figure. 	1
5	In a series *LCR* circuit, the voltages across an inductor, a capacitor and a resistor are 30 V, 30V and 60V respectively. What is the phase difference between the applied voltage and the current in the circuit?	1
6	Can a capacitor of suitable capacitance replace a inductor coil in an *AC* circuit?	1
7	When an alternating current is passed through a moving coil galvanometer, it shows no deflection. Why?	1
8	Which of the following curves may represent the reactance of a series *LC* combination?	1



9 In a series *LCR* circuit, $V_L = V_C \neq V_R$. What is the value of power factor? 1

10 The power factor of an ac circuit is 0.5. What is the phase difference between voltage and current in this circuit? 1