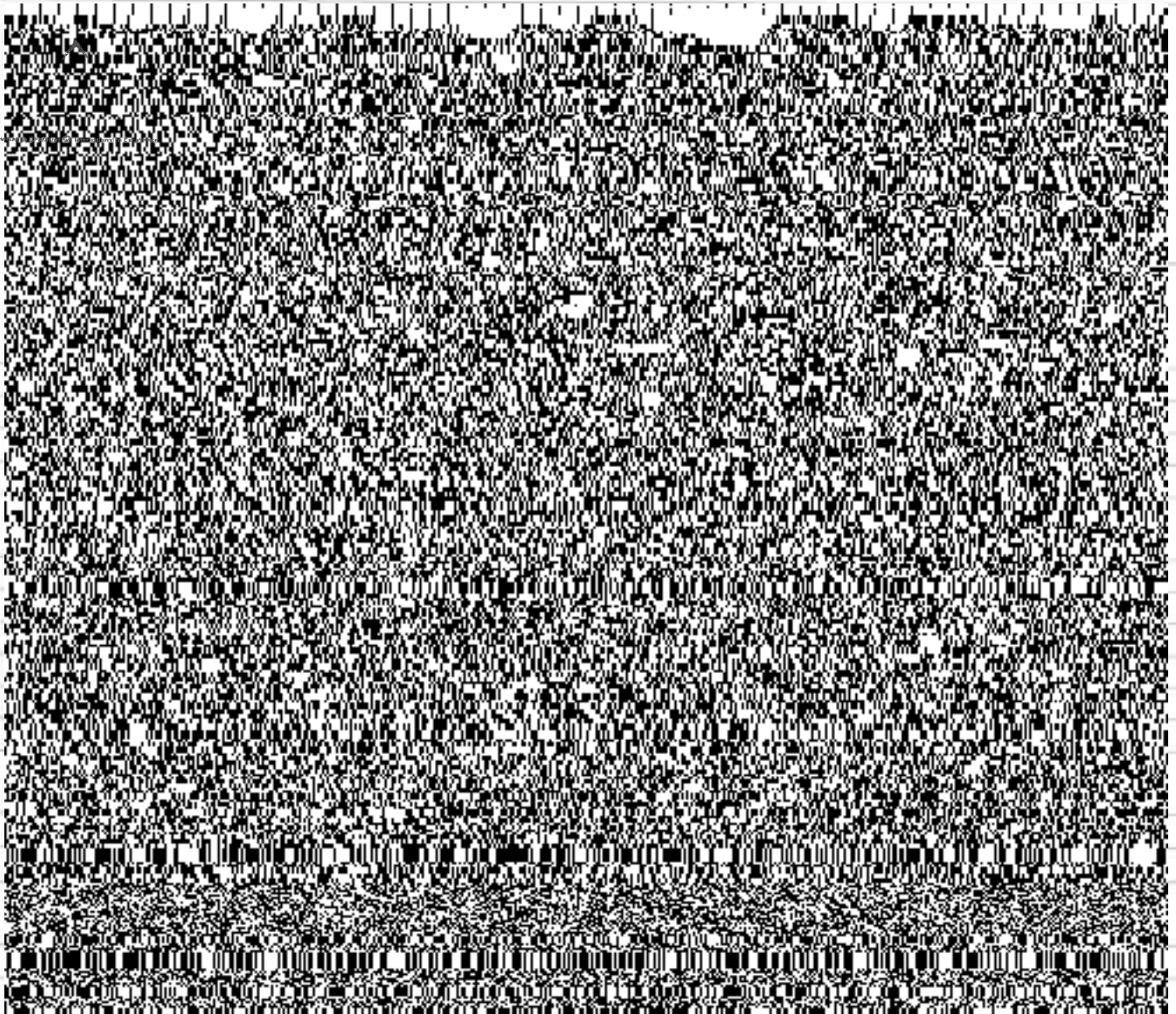


13 Explain following terms:
 i) form factor ii) peak factor iii) phase difference iv) frequency
 v) Power factor ?

10M

2

L2

OR

14	Derive the expression for impedance (Z), phase angle (θ) and power factor ($\cos\phi$) for RC series circuit with relevant phasors.	10M	2	L2
15	a) Derive the Emf equation of transformer. b) A 50KVA, 1100/400 V, 50Hz single phase transformer has 80 turns on the primary. Calculate i) the number of turns on the secondary ii) the full load primary and secondary currents and iii) the maximum value of the flux	5M 5M	3	L2
	OR			
16	Explain the OC test of a single phase transformer with neat diagram.	10M	3	L2
17	Explain the working principle and construction parts of dc machine with neat diagram.	10M	4	L2
	OR			
18	Explain the construction and working principle of I-phase induction motor.	10M	4	L2
19	Summarize the function of circuit breaker and describe about MCB and MCCB.	10M	5	L2
	OR			
20	Classify the types of batteries and mention the important characteristics of batteries..	10M	5	L2