CMR INSTITUTE OF TECHNOLOGY

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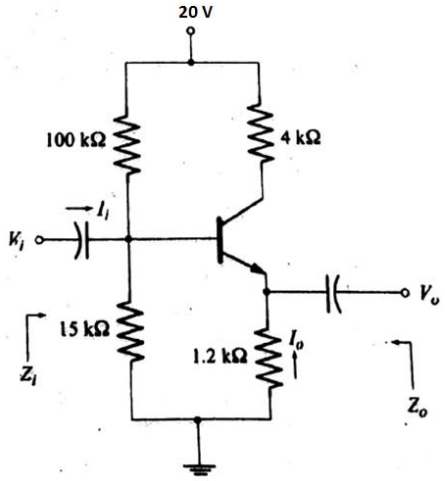
Internal Assesment Test - II

Sub:	**ANALOG ELECTRONIC CIRCUITS**							Code:	18EE34
Date:	5/11/2020	Duration:	90 mins	Max Marks:	50	Sem:	3rd	Branch:	EEE

Answer **Any FIVE FULL** Questions

		Marks	OBE	
			CO	RBT
1.	Define h parameter and obtain an equivalent h parameter model of CE, CC and CB configurations. Also write generalized h-parameter equations.	10	CO2	L4
2.	For the Emitter Follower circuit shown below, determine the following: a) r_e b) Z_i c) Z_o d) A_v and e) A_I Take $\beta = 90$ and $r_o = \infty$ 	10	CO2	L4
3.	A transistor in CE mode has h-parameters h_{ie} = 1.1KΩ, h_{re} = 2 x 10^{-4}, h_{fe} = 100 and h_{oe} = 20 μA / V. Determine equivalent CB parameters.	10	CO2	L4
4.	Draw the circuit diagram of Common Emitter amplifier with fixed biasing. Also draw its AC equivalent r_e model. Derive the expression for input impedance, output impedance, voltage gain and current gain.	10	CO2	L4
5.	Derive equations for Miller Input Capacitance and Miller output capacitance with appropriate diagrams.	10	CO2	L4
6.	State and prove Millers Theorem.	10	CO2	L4
7.	What are the advantages of h parameters? Explain the relationship using circuit and equations between the parameters of hybrid model and the r_e model for CE and CB configuration.	10	CO2	L4