NARSIMHA REDDY ENGINEERING COLLEGE
UGC AUTONOMOUS INSTITUTION
Maisammaguda (V), Kompally - 500100, Secunderabad, Telangana State, India
UGC - Autonomous Institute
Accredited by NBA & NAAC with 'A' Grade
Approved by AICTE
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QUESTIONBANK

UNIT–II

S.No		Questions	BT	CO	PO
Part– A(Short Answer Questions)					
1		What is a BJT and draw its symbol.	2	2	1
2		What do you mean by early effect.	1	2	1
3		Compare CE, CB and CC configurations	2	2	1
4		Which of the BJT configurations are suitable for impedance matching applications? Why?	2	2	1
5		Write a short notes on switching characteristics of a transistor	2	2	1
6		Write a short note on transistor as a switch	4	2	2
7		What are the three regions of a transistor?	2	2	2
8		In a CB transistor circuit the emitter current I_E is 10mA and collector current is9.8mA. find the value of the base current I_B	2	2	1
9		Ifatransistorhasαof0.97,find the value of β. If β=200, find the value of α.	2	2	1
10.		Define ON time and OFF time of a transistor.	2	2	1
11.		How are the junctions of a transistor biased for saturation region operation?	1	2	1
12.		When does a transistor act as(a)a closed switch and(b) an open switch?	1	2	1
13.		When the emitter current of a transistor is changed by1mA, there is a change in collector current by0.99 mA. Find the current gain of the transistor.	2	2	1
14.		Why we call BJT is a current controlled device?	2	2	1
Part– B(Long Answer Questions)					
15	(a)	With neat diagram explain various current components in an PNP/NPN bipolar junction transistor.	3	2	1
	(b)	Explain the working of a transistor as a switch.			
16	(a)	Draw and explain input and output characteristics of CB configuration	2	2	1
17	a)	Draw and explain input and output characteristics of CE configuration	4	2	2
	b)	Explain the different operating regions of transistor.	2	2	3
18	a)	Draw and explain working principle of CC characteristics of a transistor.	3	2	3
	b)	Give the relationship between alpha, beta and gamma of BJT.	2	2	2