SHRI MATA VAISHNO DEVI UNIVERSITY, KATRA
School of Electronics & Communication Engineering
B. Tech.5th Semester ECE Mid-semester Examination (Odd) 2024-25

Entry No: | | | | | | | | | |

Total Number of Pages:[01]

Date:

Total Number of Questions: [05]

Course Title: Electronics Devices & Circuits

Course Code: ECL DC 205

Time Allowed:1 Hour 30 Minutes

Max Marks: [20]

Instructions / NOTE : Attempt All Questions.

i. Support your answer with neat freehand sketches/diagrams, wherever appropriate.

ii. Assume an appropriate data / information, wherever necessary / missing.

	Section – A (1*4 Marks)		
Q1.	(1) Relationship between alfa and beta current gains? (2) Draw full circuit of an emitter follower circuit. (3) What is load line? (4) Show saturation region on CE V-I charactersistics curve.	[1*4] =Marks 4	CO1, CO1, CO2, CO2,
	Section – B (16 Marks)		
Q2.	Draw universal biased CE amplifier and show that it is stable with respect to change in current gain parameter (beta)	4	CO1
Q3.	Draw Darlington transistor pair circuit and explain its advantages. Develop its "r" parameter model.	4	CO2
Q4.	Draw low frequency transistor H-Parameter model. Compare this model with corresponding r-model.	4	CO3
Q5.	Write short not on (**Any two**) (1) Miller Theorem (2) Cascading transistor amplifiers (3) Cascode transistor configurations (4) Power amplifiers (5) Different biasing circuits	4	CO2,

After successful completion of this course students will be able to achieve this

Course Outcomes

Sr	Course Outcome	CO
1	To make students understand and analyze the design and working of amplifiers and their configurations.	CO1
2	To introduce and verify basic principles, operation and applications of the various analog electronic circuits and devices like: BJT and MOSFET for various functions.	CO2
3	To Learn about frequency response of the amplifier configurations	CO3
4	To Learn about feedback its configurations and impact on designed amplifiers	CO4

CO	Questions Mapping	Total Marks	Total Number of Students (to be appeared in Exam)
CO1	1, 2,	6	
CO2	1,3	6	
CO3	3,4,5	8	