K. J. Somaiya Institute of Technology, Sion, Mumbai-22
(Autonomous College Affiliated to University of Mumbai)

Nov – Dec 2024
Program: B.Tech. (Electronics and Telecommunication)Scheme IIB
KT ~~Regular~~ Examination: SY Semester: III
Course Code: EXC 303 and Course Name: Electronic Devices & Circuits
Date of Exam: 21/11/24 Duration: 02.5 Hours Max. Marks: 60

Instructions:
(1)All questions are compulsory.
(2)Draw neat diagrams wherever applicable.
(3)Assume suitable data, if necessary.

Q. No.	Question	Max. Marks	CO	BT level
Q 1	Solve any **two** questions out of three: (05 marks each)	10		
a)	Explain differences between BJT and FET diode?		1	1
b)	Draw circuit diagram of BJT circuit with voltage divider biasing.		2	2
c)	Explain concept of DC load in line for the amplifier.		3	3
Q 2	Solve any **two** questions out of three: (05 marks each)	10		
a)	What is biasing? And Explain need of biasing.		3	2
b)	State different types of Multistage amplifiers.		4	3
c)	Draw the circuit diagram of basic MOSFET differential amplifier and explain its operation.		6	3
Q.3	Solve any **two** questions out of three. (10 marks each)	20		
a)	Explain the effect of bypass capacitor and parasitic capacitor on frequency response of an amplifier		2	4
b)	Draw the circuit diagram and explain operation of two transistor current source. State its applications.		5	2
c)	Draw circuit diagram of class AB amplifier with diode biasing and explain its operation?		6	2
Q.4	Solve any **two** questions out of three. (10 marks each)	20		
a)	What is the function of power amplifiers? Explain its classification?		3	3

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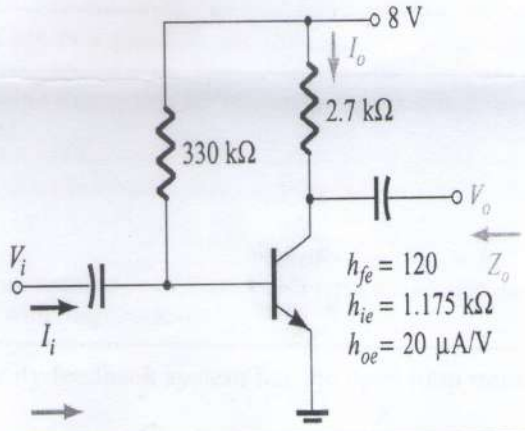
b)	What are different biasing circuits used for BJT ?Draw circuit diagram and explain the operation of any one biasing circuit for BJT ?		3	3
c)		(a) Z_i. (b) Z_o. (c) A_v. (d) A_i.	1	4

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