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Examination: Odd Semester Examination 2022-23

Paper Name: Analog Electronics
Time: 3 Hours

Paper Code: BTCSE-301 lateral Entry
Maximum Marks: 75

Section-A (7 X 5 = 35)

Note: Attempt all the questions

Q. No.	Question	Marks	CO	BL
1.	Explain the working of LED diode.	5	CO1	BL3
2.	Determine the emitter current- I_E , collector current- I_C for transistor with $\alpha = 0.98$ and collector to base leakage current 9 μA . Base current is 49 μA .	5	CO2	BL5
3.	Differentiate between common base and common emitter.	5	CO4	BL4
4.	Compare and contrast BJT and MOSFET.	5	CO3	BL4
5.	Draw and label the pin diagram of IC741.	5	CO4	BL3
6.	Explain transistor as an amplifier.	5	CO5	BL3
7.	Establish relation between α and β of BJT.	5	CO1	BL5

Section B

Note: Attempt any four (4) Questions

(4x10=40)

Q. No.	Question	Marks	CO	BL
1.	Explain the working of Full Wave rectifier and also derive ripple factor, efficiency of full wave rectifier.	10	CO1	BL5
2.	Explain how op-amp act as an inverting and non-inverting amplifier and deduce its gain.	10	CO2	BL4
3.	Explain construction and working of enhancement mode MOSFET.	10	CO3	BL3
4.	Explain all four modes of differential amplifier with the help of a neat diagram.	10	CO4	BL3
5.	Draw and explain Schmitt trigger with the help of a neat diagram.	10	CO5	BL5
6.	Write a short note on any two of the followings: • Voltage regulation • Clamper • Zener Diode	10	CO3, CO5, CO1, CO2	BL2

BL: Blooms Taxonomy Level; (1-remembering, 2-understanding, 3-apply, 4-analyse, 5- evaluate, 6-create)