Code No: **R15A0408**

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY
(Autonomous Institution – UGC, Govt. of India)
III B.Tech I Semester Supplementary Examinations, April 2023
IC Applications
(ECE)

Roll No										

Time: 3 hours   **Max. Marks: 75**

Note: This question paper contains two parts A and B
Part A is compulsory which carriers 25 marks and Answer all questions.
Part B Consists of 5 SECTIONS (One SECTION for each UNIT). Answer FIVE
Questions, Choosing ONE Question from each SECTION and each Question carries
10 marks.

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PART-A (25 Marks)

1). a	What is CMRR?		**[2M]**
b	Write the DC characteristics of Op-Amp		**[3M]**
c	What are the advantages of Active filter over passive filters?		**[2M]**
d	Find the frequency response of first order low-pass Butterworth filter?		**[3M]**
e	Define resolution of a converter		**[2M]**
f	Define Stability of a converter		**[3M]**
g	Write the specifications of combinational logic ICs		**[2M]**
h	What is the importance of selection lines in multiplexer?		**[3M]**
i	What is meant by dynamic RAM?		**[2M]**
j	What are the applications of flash ROM?		**[3M]**

PART-B (50 MARKS)
SECTION-I

2	How an Op-Amp is used as Inverting and Non-inverting amplifier? Explain	**[10M]**

OR

3	Derive the output response of instrumentation amplifier using 1&2 Op-amp	**[10M]**

SECTION-II

4	Determine the output frequency response of narrow band pass filter?	**[10M]**

OR

5	Draw and explain the block diagram of Phase Locked Loop.	**[10M]**

SECTION-III

6	Illustrate the operation of binary weighted DAC with suitable diagrams.	**[10M]**

OR

7	Explain the operation of dual slope ADC with suitable diagrams.	**[10M]**

SECTION-IV

8	Demonstrate the operation of encoder with the help of ICs.	**[10M]**

OR

9	Explain the operation of TTL and Write the applications of TTL.	**[10M]**

SECTION-V

10	Describe the operation of ring counter and explain the operation in detail.	**[10M]**

OR

11	Give the architectural details of RAM and explain.	**[10M]**

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