

FACULTY OF SCIENCE

B.Sc. (CBCS) II-Year (IV-Semester) Regular & Backlog Examinations, June/July-2023
Electronics-IV

(Linear Integrated Circuits & Basics of Communication)

Time: 3 Hours

Max Marks: 80

SECTION-A

(4x5=20 Marks)

Answer any Four questions from the following

1. What is a differential amplifier? Write its different configurations.
2. List out the electrical characteristics of an op-amp.
3. Define voltage regulator.
4. List the features of 555 timer.
5. What are the applications of AM in communication System?
6. Write the basic functions of a radio receiver.

SECTION-B

(4x15=60 Marks)

Answer all the following questions

7. (a) Explain the op-amp operation with the help of block diagram.
(OR)
(b) Derive the gain of non-Inverting op-amp and draw the corresponding I/P and O/P wave forms.
8. (a) With a neat diagram explain about triangular wave generator.
(OR)
(b) Explain the working of astable multivibrator using 555 IC.
9. (a) Classify the various types of continuous wave modulation and sketch their wave Forms.
(OR)
(b) Describe the methods of AM signal generation.
10. (a) Derive time Domain equation of Frequency modulation.
(OR)
(b) Give a detail account of the classification of pulse modulation techniques.