2003000204020091
EXAMINATION OCTOBER 2024 (ATKT EXAM)
BACHELOR OF SCIENCE (FOURTH SEMESTER)
ELECTRONICS-III
AMPLIFIERS & LINEAR INTEGRATED CIRCUITS

[**Time: As Per Schedule]** **[Max. Marks: 50]**

Instructions:
1. Fill up strictly the following details on your answer book
   a. Name of the Examination: **BACHELOR OF SCIENCE (FOURTH SEMESTER)**
   b. Name of the Subject: **ELECTRONICS-III AMPLIFIERS & LINEAR INTEGRATED CIRCUITS**
   c. Subject Code No: **2003000204020091**
2. Sketch neat and labelled diagram wherever necessary.
3. Figures to the right indicate full marks of the question.
4. All questions are compulsory.
5. All symbols and abbreviations have their usual meaning.
6. Assume data if necessary.

Seat No:

Student's Signature

Q.1 **Answer in short:** **8**

(a) What is a tuned amplifier?

(b) Define an oscillator in electronic circuits.

(c) What is positive feedback?

(d) A BMV has two _____ stable states.

Q.2 (a) what is the effect of negative feedback on input and output resistance of voltage-series negative feedback amplifier **10**

(b) The voltage gain of an amplifier without feedback is 3000. Calculate the voltage gain of the Amplifier if negative voltage feedback is introduced in the circuit. Given that feedback factor is 0.01. **4**

OR

(a) Explain circuit and working of Hartley oscillator. **10**

(b) Explain the types and requirement of oscillation. **4**

Q.3 (a) Draw the circuit diagram for transistorized Bistable multivibrator. Explain the operation of Bistable multivibrator. **10**

(b) Compare Astable, Monostable and Bistable multivibrator. **4**

OR

(a) Explain Class-B push-pull power amplifier in detail. **10**

(b) What is cross-over distortion? How is it overcome? **4**

Q.4 **Write short note on (Any TWO)** **14**

(a) Phase shift Oscillator

(b) Astable multivibrator

(c) Class A power amplifier

(d) Classification of amplifier.

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