**Faculty Member: Date:** .

**Semester: Section:** .

**EE-351 Communication Systems**

**Lab 6:** **: Mixer, IF Filter and Envelope Detector**

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|  |  | **PLO4-CLO3** | | **PLO5-CLO4** | **PLO8-CLO5** | **PLO9-CLO6** |
| **Name** | **Reg. No** | **Viva / Quiz / Lab Performance** | **Analysis of data in Lab Report** | **Modern Tool Usage** | **Ethics and Safety** | **Individual and Team Work** |
|  |  | **5 Marks** | **5 Marks** | **5 Marks** | **5 Marks** | **5 Marks** |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

**Lab 6: Mixer, IF Filter and Envelope Detector**

**Objectives**

When you have completed this exercise, you will be able to explain the operation of mixer, describe the function of IF filter and describe how the envelope detector converts a 455kHz signal to the message signal .You will use an oscilloscope to make AM signal measurements.

**Lab Instructions**

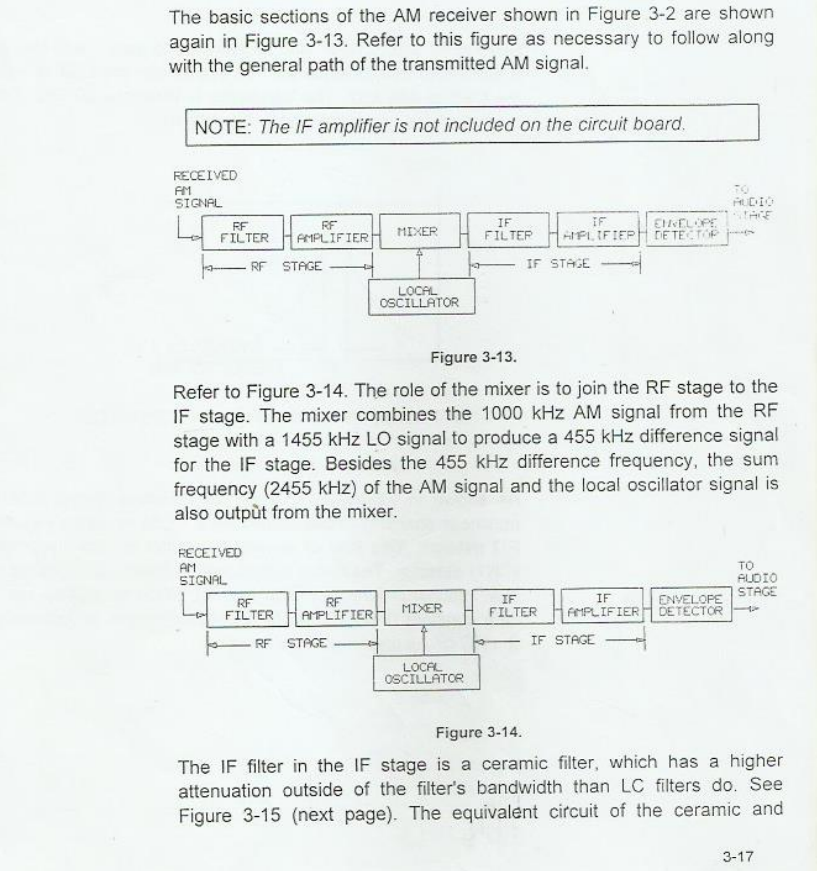
* The students should perform and demonstrate each lab task separately for stepwise evaluation
* Each group shall submit lab report on LMS within 6 days after lab is conducted. Lab report submitted via email will not be graded.
* Students are however encouraged to practice on their own in spare time for enhancing their skills.
* Complete as many problems as you can within the allotted time.
* Talk to your classmates for help

**Lab Report Instructions**

All questions should be answered precisely to get maximum credit. Lab report must ensure following items:

* Lab objective
* Results (screen shots) duly commented and discussed.
* Conclusion

**Introduction:**



Diagram, text, letter

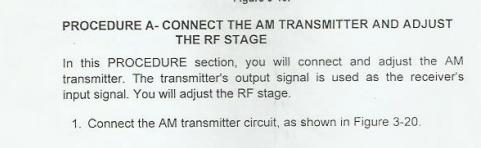
Description automatically generated

Diagram

Description automatically generated

**Tasks:**

**Procedure A: Connect the AM Transmitter and Set the RF stage:**

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**Text, letter

Description automatically generated**

**A picture containing text, receipt

Description automatically generated**

**Procedure B: Mixer**

**Diagram

Description automatically generated with medium confidence**

**A picture containing text, receipt, screenshot

Description automatically generated**

**Diagram

Description automatically generated**

**Procedure C: IF Filter**

**Text, letter

Description automatically generated**

**Text

Description automatically generated**

**Procedure D: Envelope Detector:**

**Text, letter

Description automatically generated**