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## **INSTRUMENT STUDY 1**

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**Candidate Name** \_\_\_\_\_ **Date** \_\_\_\_\_ **Completion** \_\_\_\_\_

### INSTRUMENTATION

1. Which three gauges comprise the pitot static instruments?
2. What is the basic mechanical principal of operation of the pitot static instruments?
3. What specific effect would blockage of the pitot tube have on these instruments.?
4. What would happen if the static port gets clogged?
5. What affect does using the alternate static have on the pitot static instruments?
6. If the aircraft is not equipped with an alternate static source, what instrument cover should be broken to achieve the same result?
7. Which instruments are the gyroscopic instruments?
8. What is the basic mechanical principal driving these gyros? How does the vacuum system operate?
9. In most light airplanes, which gauges would become inoperative in the event of a vacuum pump failure?
10. What gyro is usually electrically powered?

## BASIC ATTITUDE INSTRUMENT

1. List the Pitch instruments?
2. List the Bank Instruments?
3. List the Power Instruments?
4. What are the primary pitch, power, and bank instruments, respectively in:
  - a. Straight and level?
  - b. Level Turns?
  - c. Constant speed climbs and descents?
  - d. Constant Rate climbs and descents?
  - e. A descending 500FPM turn?
5. True or False? All constant rate climbs will stabilize at a constant speed and vice versa.
6. Explain the difference between performance instruments and control instruments. Which are they respectively?

## UNUSUAL ATTITUDES

1. What pilot action sequence must be taken in the event of a nose low unusual attitude?
2. What pilot action sequence must be taken in the event of a nose high unusual attitude?
3. Why must the wings be leveled before raising the nose in a spiral dive?