

AVIA 101 Homework Assignment # 1  
Answers are located in your Jeppesen Private Pilot Manual

**Chapter 2 Airplane Systems**

1. Describe both:

- monocoque airplane structure -
- semi-monocoque airplane structure -

2. Where are the following located on an airplane?

- Aileron –
- Flaps –
- Vertical stabilizer –
- Horizontal stabilizer –
- Rudder –
- Elevator –
- Stabilator –

3. List the four steps in the four stroke operating cycle of most reciprocating engines:

- 1.
- 2.
- 3.
- 4.

4. How and when does carburetor ice occur?

5. How would a pilot combat the effects of carburetor ice in an engine with a float-type carburetor?

6. How does a magneto work? What is the negative effect of loose or broken wires in the ignition system?

7. Describe:

➤ Preignition-

➤ Detonation-

8. When does air cooling of the engine become less effective? What is the effect of the excessive heat?

9. In regard to the airspeed indicator, what is the:

➤ Yellow arc -

➤ Green arc-

➤ White arc-

➤ Red line -

10. Describe the purpose of:

➤ Turn coordinator –

➤ Attitude indicator –

➤ Vertical speed indicator –

➤ Magnetic compass –

➤ Heading indicator -