AVIA 122 Midterm Exam review…

Who can perform preventive maintenance?
    Who can perform limited preventive maintenance?

How long between inspections if an aircraft is used for pleasure flying?
    For flight instruction?

What FAR regulates aircraft maintenance?

What two types of energy does a heat engine produce?
    What does it use to do this?

What does the output of an aircraft power plant produce?

What connects the engine to the propeller?

What does engine vibration cause (two things)?

What is the sequence of a four-stroke engine?

How many degrees does a crankshaft turn . . .

    For each stroke?
    For all four strokes?

What is valve overlap?

What does the compression ratio of an engine affect most?

What is thrust horsepower (THP)?

What does the lubrication system do?

What types of oil are used in an aircraft engine (break-in and normal operation)?

What is the most common lubrication system used in an aircraft engine?

How much of the engines heat energy must be dissipated (or how much heat energy does not get converted to power)?

What is the purpose of cylinder head baffles?

How can the pilot manage engine temperatures (at least 4 things)?

What is a propeller?

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What are the advantages of a constant-speed propeller (greater efficiencies in…)?

What are the four rotational forces that act on a propeller?

What problems do nicks, scratches and irregularities cause for a propeller?

How can you adjust the pitch & angle of a fixed pitch propeller?

Which direction(s) can you turn a propeller during preflight?

What is a poisonous byproduct of the combustion process?

What is the optimum air: fuel ratio for maximum power from an aircraft engine?

How can the pilot adjust the air: fuel ratio to the carburetor?

What color is Grade -80 fuel? Grade 100? 100 LL? Jet-A?

Where will the required fuel grade be placarded on the aircraft?

What are the main hazards of the fueling process (name two)?

What is a major source of aviation fuel contamination?

How do we combat this contamination?

At what temperature will water be most likely to be absorbed into aviation fuel?

How can the pilot control carburetor icing (and the resultant power loss?)