AIRCRAFT CHECKOUT QUIZ
1981 TURBO CENTURION T210N (N6448Y)

09/06/2006

SECTION 1 - GENERAL

a. ENGINE

- Engine manufacturer and model number: _____
- Maximum horsepower (5 minutes-takeoff) rating, manifold pressure, and engine speed: _____
- Maximum continuous power rating, manifold pressure, and engine speed: _____

b. FUEL

- Type of fuel grades and colors: _____
- Total fuel capacity: _____
- Total usable fuel: _____

c. OIL

- Recommended oil viscosity for above 40 deg F: _____
- Total oil capacity: _____
- Minimum oil capacity: _____

d. MAX CERTIFICATED WEIGHTS

- Ramp weight: _____
- Max takeoff weight: _____
- Landing weight: _____
- Baggage forward of wheel well on folded down aft seat (Sta. 89-110): _____
- Baggage on wheel well (Sta. 110-124): _____
- Baggage on and aft of wheel well (Sta. 110-152): _____
- What is the maximum allowable combined weight capacity for baggage forward, on, and aft of the wheel well? _____

SECTION 2 - LIMITATIONS

a. AIRSPEED LIMITATIONS (KIAS)

- Vne: _____
- Vno: _____
- Va: _____(4000 lbs), _____ (3350 lbs), _____ (2700 lbs)
- Vfe: _____(10 deg), _____ (10-20 deg), _____ (20-30 deg)
- Vlo: _____
- Vle: _____
- Vso: _____
- Vs: _____

b. POWERPLANT

- What is the time limitation for maximum power setting of 36.5" MP and 2700 rpm: _____
- In what range of propeller rpm settings should you avoid if the manifold pressure is above 24" Hg? _____

c. FLAP LIMITATIONS

- Approved takeoff range: _____

SECTION 3 - EMERGENCY PROCEDURES

a. EMERGENCY AIRSPEEDS

- Engine failure after takeoff: Flaps up:_____ Flaps down:_____
- Max glide: _____ (4000 lbs) _____ (3350 lbs)
- Landing without engine power: Flaps up:_____ Flaps down:_____

b. ENGINE FAILURE IMMEDIATELY AFTER TAKEOFF

_____
_____
_____
_____

c. EMERGENCY LANDING WITHOUT ENGINE POWER

_____
_____
_____
_____

d. LANDING GEAR FAILS TO RETRACT

_____
_____
_____
_____

e. LANDING GEAR FAILS TO EXTEND

_____
_____
_____
_____

f. LANDING WITHOUT POSITIVE INDICATION OF GEAR LOCKING

_____
_____
_____
_____
_____

g. LOW VOLTAGE LIGHT ILLUMINATES DURING FLIGHT

_____
_____
_____
_____

h. What is the maximum glide distance per 1000 feet with the prop windmilling, flaps and gear up, and zero wind?
_____

i. What is the indication of engine-driven fuel pump failure?
_____

j. Describe the procedure in the event of an engine-driven fuel pump failure during takeoff:

_____
_____
_____
_____

k. What are the indications of excessive fuel vapors in the fuel lines and how is it eliminated?

_____
_____
_____
_____

l. If you had a landing gear malfunction in flight, what are some ways you can troubleshoot the problem?

_____
_____
_____
_____

m. Approximately how long should a normal landing gear retraction take? ____ seconds For normal gear extension time? _____seconds

n. What should you do if the gear motor operates after a period of more than one minute following gear lever retraction or extension? _____

o. If you have to make a gear-up landing after all efforts have been made to fully extend the gear have failed, what position should the gear lever and the gear pump circuit breaker be in? _____

p. If the alternator went off-line due to an over-voltage situation, should you attempt to reactivate the alternator system? If so, how? _____

q. If the alternator goes off-line again after attempting to reactivate it, what would you do next?
_____

SECTION 4 – NORMAL PROCEDURES

a. NORMAL OPERATION SPEEDS

- Vr: _____
- Vy: _____
- Vx: _____
- Normal approach, flaps up: _____
- Normal approach, flaps 30 deg: _____
- Short field approach, flaps 30 deg: _____
- Maximum demonstrated crosswind: _____

b. Describe the engine starting procedure:

_____
_____
_____
_____

c. Why should you momentarily apply the brakes before retracting the landing gear?

_____

d. What is the recommended power setting for enroute climb to provide better visibility, engine cooling, lower fuel flow, and lower noise level? _____

e. What is the recommended normal cruising range in percentage of the maximum continuous power rating?

_____

f. What is the recommended lean during cruise? _____

g. During the descent, what is the optimum engine RPM should be used to allow CHT to remain in the operating range and provide smooth engine operation? _____

h. What happens if the throttle is retarded below 15" MP when the landing gear is not extended?

_____

SECTION 5 – PERFORMANCE

a. Determine the total takeoff ground roll based on the following conditions:
- Weight: 4000 lbs
- Temp: 20 deg C
- Press Alt: 1000 ft
- Headwind: 5 kts
- Short field technique

TOTAL GROUND ROLL = _____

b. Determine the cruise performance based on the following conditions:
- Weight: 4000 lbs
- Press Alt: 10000 feet
- Temp: 15 deg C
- 2400 RPM
- 65% BHP

MP = _____ KTAS = _____ FUEL FLOW = _____

c. Determine the landing ground roll distance based on the following conditions:
- Weight: 3800 lbs
- Temp: 10 deg C
- Press Alt: 2000 ft

- Wind: Calm
- Short field technique

TOTAL GROUND ROLL = _____

SECTION 6 – WEIGHT AND BALANCE

a. Perform a weight and balance calculation for your flight:

	WEIGHT(lbs)	ARM(in)	MOMENT/1000 (in-lb)
Basic empty weight:	2477	40	99.8
Full Fuel (89 gal):	_____	_____	_____
Pilot:	_____	_____	_____
Co-Pilot:	_____	_____	_____
Center Pax:	_____	_____	_____
Aft Pax:	_____	_____	_____
Baggage:	_____	_____	_____
TOTAL:	_____	_____	_____

Are you within the C.G. limits? _____

SECTION 7 – AIRPLANE SYSTEMS

a. LANDING GEAR SYSTEM

- What powers the landing gear system for gear extension and retraction? _____

- How can you test the gear-down indicator light (green)? _____

- What holds the gear in the full up position? _____

- Where is the gear safety switch (squat switch) located? _____

- During cruising flight with the gear retracted, is it normal for the hydraulic pump motor to operate up to twice per hour? _____

b. TURBOCHARGER

- Is a momentary overboost of manifold pressure normal? If so, what is the max limit?
_____

- How can you prevent or minimize an overboost of manifold pressure during the takeoff roll?
_____

c. FUEL SYSTEM

- When the fuel tanks are ¼ full or less in flight, what should you avoid? _____

- Can fuel be used from both fuel tanks simultaneously? _____

- How many fuel drains in the system? _____

- When do you use the YELLOW right half of the aux pump switch? _____

- When do you use the RED left half of the aux pump switch? _____

_____
Pilot Name and Signature

_____ _____
California Flight Center CFI Date