



NAME: _____

LICENCE #: _____

DATE: _____

CORRECTED TO 100%

INSTRUCTOR NAME: _____

INSTRUCTOR SIGNATURE: _____

PILOT SIGNATURE: _____



General Information:

1. What type of engine is in the Eclipse?
2. What is the Maximum horsepower?
3. What is the type and diameter of the Propeller?
4. What is the recommended tire pressure - Nose
- Mains
5. What grade of fuel does it burn?
 - a. Total Fuel Capacity
 - b. Useable Fuel
6. What is the max gross take-off weight?
 - a. Useful Load
 - b. Performance Wing Loading (max take-off weight)
7. Airframe Material
 - a. Fuselage
 - b. Wing
 - c. Spar
8. Comm/Nav Equipment
 - a. GPS antenna location
 - b. VOR antenna location
 - c. VHF antenna location



- | | |
|-----------------------------------|-----------------|
| 9. Oil Capacity | Approved Grades |
| a. Min | Phillips |
| b. Max | Shell |
| 10. Main air intake location | |
| 11. Alternate air intake location | |

Normal Operations

1. Structural Temperature Indicator
 - a. Where is it located?
 - b. Explain indications when...
 - i. Within limits
 - ii. Out of limits
2. Braking System
 - a. If Co-pilot experiences brake failure, what happens to pilot's braking ability?
3. Mixture Control
 - a. List maneuvers/operations requiring mixture set full rich?



4. Electric Fuel Pump
 - a. Main reason for installation?
 - b. When is it used?
5. Pre flight Inspection
 - a. Number of fuel drains?
 - b. Location of fuel drains?
 - c. Purpose of fuel drains?
6. What is the glide ration of the DA20?
7. What is the best glide speed?
8. How far would you glide from 8,000 ft?

Operating Limitations

1. What is the Max demonstrated crosswind component?
2. What are the 3 flap positions and corresponding degrees?
3. What is the speed range for flap operations?
4. List the following airspeeds

5. Engine Operation
 - a. Max t/o power duration
 - b. Max t/o continuous RPM
 - c. Normal operating oil pressure range



6. Centre of Gravity Range

- a. Forward limit
- b. Aft limit
- c. Reference datum
 - i. Max G load
 1. positive
 2. negative

7. Flight Controls - Mechanisms

- a. Rudder
- b. Elevator
- c. Ailerons

8. Electrical System

- a. Battery voltage
- b. Generator strength
- c. Amp hours

Aircraft Performance

1. List the Fuel Consumption and TAS under following conditions:

Pressure Alt 8000'

2600 RPM

Temp -1C

Fuel

TAS



Pressure Alt 5000'

2500 RPM

Fuel

Temp -15 C

TAS

Pressure Alt 3000'

65% Power

Fuel

Temp 19 C

TAS

2. Stall Speeds

45 degrees angle of bank

CAS =

Flaps at cruise

IAS=

3. Fuel and Maximum Duration Under the Following Conditions

Pilot and Passenger: 350 lbs

Baggage: 40lbs

P.A. 9500'

Temp: -4C

Power: 2600 RPM



4. Crosswind Chart

A) Wind 220 @ 15G25KTS Runway 27

i) Headwind Component:

ii) Crosswind Component:

iii) Can we Take-off? :

B) Wind 040 @ 18G25KTS Runway 33

i) Headwind Component:

ii) Crosswind Component:

iii) Can we Take-off?:

5. Takeoff Distance

A) Temp: 30C

P.A. 4500'

A/C Weight : 1620 lbs.

Runway 33:

Wind: 300 @ 8 Kts

Obstacle : 30'

B) Temp: 25C

P.A. 3000'

A/C Weight: 1640 lbs



Runway 15

Wind: 040 @ 8Kts

NO obstacles

EMERGENCY PROCEDURES

1. Emergency IMMEDIATE ACTION Airspeeds:

i) Engine Failure after takeoff (Flaps T/O)?

ii) Engine Failure at Altitude?

2. Emergency Airspeeds

i) Landing / Engine Out - Flaps UP:

ii) Landing / Engine Out - Flaps- LANDING

iii) Manoeuvring Speed:

3. Procedures :

i) Engine Failure during Takeoff Run?



ii) Engine Failure after Takeoff?

iii) Securing Engine Before Power-Off Landing?

iv) Rough Running Engine - Cause Check?

v) Engine Restart- Prop Windmilling?

vi) Engine Fire During Flight?



vii) Electrical Fire During Flight?

viii) Electrical Power Failure in Flight?

ix) Generator Failure?

x) Trim System Failure - Runaway Trim Motor?
